# CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS.

New York, April 6, 1905.

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## CIVIL SERVICE EXAMINATIONS FOR TECHNICAL POSITIONS.

DRAFTSMAN; INSPECTOR OF CONSTRUCTION.—U. S. Civil Service Commission, Washington, D. C., from whom further information can be obtained, will hold an examination May 3-4, at various places throughout the country, to secure eligibles to fill vacancies in the position of topographic draftsman, at $900 to $1,500 per year, under the Panama Canal Commission on the Isthmus of Panama. An examination will also be held May 3, at various places through the country to fill a vacancy in the position of inspector of construction, at $720 per year, in the Quartermaster's Department at Large, Boston, Mass., and similar vacancies as they may occur.

## CONSTRUCTION NEWS.

### PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S), and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

| Bids close | Work. | Place. | On file. | See issue. |
|---|---|---|---|---|
| Apr. | | | | |
| *8 | Bridge | Springfield, Mass. | P | 3-23 |
| 8 | Dredging | Dry Tortugas, Fla. | S | 3-23 |
| *12 | Water-works, etc. | Graham, N. C. | P. & S. | 3-30 |
| 15 | Electric crane | Puget S'd, Wash. | S | 3- 9 |
| 29 | Coal plant | New Orleans, La. | S | 3- 9 |
| 22 | Plumbing, etc. | Charleston, S. C. | S | 3-30 |
| May | | | | |
| 6 | Quay wall | Bremerton, Wash. | S | 3-23 |
| *14 | Water-works | Mansfield, La. | S | 2- 2 |
| Sept. | | | | |
| 1 | Steel manufacture | New S. Wales. | S | 3-23 |

*Work advertised in Engineering News.

NOTE.—We are desirous of securing specifications and bidding sheets (and plans when not too bulky) of pending work for file in our New York office for the benefit of contractors or others who may be interested in the work. If more sets than one are sent us we shall be pleased to distribute these to contractors who ask for them. When the work is advertised in Engineering News a note that the plans are filed with us will be added to the advertisement without cost.

### LIST OF CONTRACTS PENDING.

Bids close. Work. Place. See issue.

LIGHT, HEAT AND POWER PLANTS.

Apr. 6. Electric plant, New Albany, Miss. ..... Mar. 23
Advertised, Eng. News, Mar. 16 to Apr. 6.
Apr. 8. Street lighting, Washington, D. C. ..... Mar. 30
Advertised, Eng. News, Mar. 30 and Apr. 6.
Apr. 11. City lighting, Shreveport, La. ..... Feb. 16
Apr. 12. Power house, Lockport, Ill. ..... Feb. 16
Advertised, Eng. News, Feb 16.
Apr. 12. Ten miles gas mains, Bristol, Conn. ..... Mar. 30
Advertised, Eng. News, Mar. 30.
Apr. 20. Village lighting, Barnesville, O. ..... Apr. 6
Apr. 24. City lighting, Janesville, Wis. ..... Apr. 6
Apr. 27. City lighting, Ligonier, Ind. ..... Mar. 30
May 2. Lighting, Oswego, N. Y. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to Apr. 27.
May 15. Electric plant, Jewell City, Kan. ..... Mar. 23

BRIDGES.

Apr. 7. Bridge, Elk River, Minn. ..... Mar. 30
Advertised, Eng. News, Mar. 30.
Apr. 6. Bridge, Wabash, Ind. ..... Mar. 2
Apr. 6. Bridges, Bluffton, Ind. ..... Mar. 23
Apr. 6. Bridge, steel, Warrenton, Mo. ..... Mar. 23
Apr. 7. Bridge, Amoka, Minn. ..... Mar. 23
Apr. 8. Bridge, Springfield, Mass. ..... Mar. 23
Advertised, Eng. News, Mar. 23 and 30.
Apr. 10. Bridge, Tillamook, Ore. ..... Mar. 23
Apr. 10. Bridge, superstructure, Cleveland, O. ..... Mar. 23
Apr. 10. Bridge, Townsend, Mont. ..... Mar. 30
Apr. 10. Bridge, New Haven, Conn. ..... Apr. 6
Apr. 10. Culverts, Los Angeles, Cal. ..... Apr. 6
Apr. 11. Bridges, New York, N. Y. ..... Apr. 6
Apr. 12. Bridge, masonry, Napa, Cal. ..... Apr. 6
Apr. 12. Bridges, steel, Cleveland, O. ..... Mar. 30
Apr. 13. Bridges, etc., Jackson, O. ..... Mar. 23
Apr. 14. Bridge, St. Louis, Mo. ..... Apr. 6
Apr. 15. Bridge, Indianapolis, Ind. ..... Apr. 6
Apr. 15. Bridge, steel, Spokane, Wash. ..... Apr. 6
Apr. 15. Viaduct, reflooring, Birmingham, Ala. ..... Apr. 6
Apr. 19. Bridges, steel, Cleveland, O. ..... Apr. 6
Apr. 19. Bridges, Moscow, Idaho. ..... Mar. 9
Apr. 21. Approach, Cincinnati, O. ..... Mar. 30
Apr. 21. Bridges, Tacoma, Wash. ..... Apr. 6
Apr. 25. Bridge, Indianapolis, Ind. ..... Apr. 6
Apr. 25. Concrete arch, Cleveland Heights, O. ..... Apr. 6
Apr. 26. Bridge, Denver, Colo. ..... Apr. 6
May 1. Bridge steel, Quincy, Cal. ..... Apr. 6
May 1. Bridge, steel, Washington, D. C. ..... Apr. 6
Advertised, Eng. News, Apr. 6 and 13.
May 1. Bridge, Richland Center, Ark. ..... Mar. 9
May 3. Bridge, steel, Peru, Ind. ..... Apr. 6

BUILDINGS.

Apr. 7. School addition, Freeport, Ill. ..... Mar. 30
Apr. 8. Academy, Houston, Tex. ..... Apr. 6
Apr. 8. Building, Reno, Nev. ..... Mar. 30
Apr. 8. Arch construction, Wash. Barracks, D. C. ..... Mar. 30
Advertised, Eng. News, Mar. 30.
Apr. 8. Buildings, Chattanooga, Tenn. ..... Mar. 30
Advertised, Eng. News, Mar. 30 and Apr. 6.
Apr. 8. Jail, Montice lo, Miss. ..... Mar. 23
Apr. 10. School, Houston, Tex. ..... Apr. 6
Apr. 10. Building, Little Rock, Ark. ..... Apr. 6
Apr. 10. Court-house, Tillamook, Ore. ..... Mar. 30
Apr. 10. School work, New York, N. Y. ..... Mar. 30
Apr. 11. White bricks, Washington, D. C. ..... Mar. 23
Advertised, Eng. News, Mar. 23 and 30.
Apr. 11. School, Youngstown, O. ..... Apr. 6
Apr. 12. Hotel, Shenandoah, Pa. ..... Apr. 6
Apr. 12. Jail, etc., Oakland, Md. ..... Mar. 16
Apr. 12. Court house, Marion, Va. ..... Mar. 16
Apr. 12. Capitol improvements, Columbia, S. C. ..... Mar. 30
Apr. 15. Shop buildings (Mfg. Pl.), Jackson, O. ..... Mar. 16
Apr. 15. Court house, Corsicana, Tex. ..... Mar. 16
Apr. 17. High school plans, Richmond, Va. ..... Mar. 16
Apr. 15. Club building, Clinton, Ia. ..... Apr. 6
Apr. 18. Auditorium, St. Joseph, Mo. ..... Mar. 16
Apr. 20. Officers' quarters, West Point, N. Y. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 13.
Apr. 20. Court-house, Norman, Okla. ..... Apr. 6
Apr. 22. School, Dexter, Ia. ..... Mar. 30
Apr. 22. Plumbing, fire mains, Charleston, S. C. ..... Mar. 30
Apr. 24. Steam heating, Charlottesville, Va. ..... Mar. 30
Apr. 24. Brick buildings, Boston, Mass. ..... Mar. 30
Apr. 25. Steam heating, Pierre, S. Dak. ..... Mar. 30
Apr. 25. Mess rooms, Ft. McPherson, Ga. ..... Apr. 6
Apr. 29. Court-house, Norman, Okla. ..... Apr. 6
Apr. 29. Heating apparatus, Wash. Barracks, D. C. ..... Mar. 30
Advertised, Eng. News, Mar. 30 to Apr. 26.
Apr. 29. Bank building, Washington, D. C. ..... Mar. 30
May 3. Court-house, Vinton, Ia. ..... Mar. 30
May 8. Interior finish, New York, N. Y. ..... Mar. 16
May 9. Mechanical equipment, Now York, N. Y. ..... Mar. 16
May 20. Masonic Temple plans, Brooklyn, N. Y. ..... Mar. 30
June 15. Court-house plans, New Orleans, La. ..... Feb. 23

WATER SUPPLY AND IRRIGATION.

Apr. 6. Water-works, etc., New Albany, Miss. ..... Mar. 23
Advertised, Eng. News, Mar. 16 to Apr. 6.
Apr. 6. Pipe line, etc., Boston, Mass. ..... Mar. 9
Advertised, Eng. News, Mar. 9 to Apr. 6.
Apr. 7. Pipe, Portsmouth, O. ..... Mar. 30
Apr. 7. Boilers, Chicago, Ill. ..... Mar. 30
Apr. 7. Pipe, etc., Woodland, Cal. ..... Apr. 6
Apr. 8. Water main, Seattle, Wash. ..... Apr. 6
Apr. 10. Pipe laying, Salt Lake City, Utah. ..... Mar. 30
Apr. 10. Water pipe, Winnipeg, Man. ..... Feb. 16
Apr. 10. Cooling tower, Kansas City, Mo. ..... Apr. 6
Apr. 11. Pumping engine, Elyria, O. ..... Mar. 30
Apr. 12. Water pipe, etc., Portland, Ore. ..... Mar. 30
Apr. 12. Water-works, etc., Humboldt, Kan. ..... Mar. 30
Apr. 12. Cocks and hydrants, New York, N. Y. ..... Mar. 30
Apr. 12. Water-works, electric p'ant, Graham, N. C. ..... Mar. 30
Advertised, Eng. News, Mar. 30 and Apr. 6.
Apr. 12. Pump house, Washington, D. C. ..... Mar. 23
Apr. 12. Water-works extension, St. Johns, N. B. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 13.
Apr. 12. Water-works, etc., Portage la Prairie, Man. ..... Mar. 9
Advertised, Eng. News, Mar. 9.
Apr. 12. Water supply, North Hempstead, N. Y. ..... Apr. 6
Advertised, Eng. News, Apr. 6.
Apr. 13. Pipe, castings, etc., Quebec, Que. ..... Apr. 6
Apr. 15. Water-works, Connelsville, Pa. ..... Mar. 30
Apr. 15. Artesian well, Fernandina, Fla. ..... Mar. 30
Apr. 15. Water-works, Northome, Minn. ..... Apr. 6
Apr. 17. Pipe line, Augusta, Me. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to April 13.
Apr. 17. Water pipe, Michigan City, Ind. ..... Apr. 6
Apr. 18. Pumping machinery, New Orleans, La. ..... Feb. 16
Advertised, Eng. News, Feb. 16 to April 20.
Apr. 18. Pumping engine, Toronto, Ont. ..... Feb. 23
Advertised, Eng. News, Feb. 23 to Mar. 23.
Apr. 20. Water-works, Millville, Minn. ..... Apr. 6
Apr. 20. Water-works, Hoisington, Kan. ..... Apr. 6
Apr. 25. Tank and tower, Washington, D. C. ..... Apr. 6
May 2. Laying pipe, Cincinnati, O. ..... Apr. 6
May 2. Pumping plant, Los Angeles, Cal. ..... Apr. 6
May 11. Water main connection, New Orleans, La. ..... Mar. 23
May 14. Water-works, Mansfield, La. ..... Mar. 2
Advertised, Eng. News, Mar. 2.
May 15. Pumping engine, Montreal, Que. ..... Mar. 9
Advertised, Eng. News, Mar. 9.
May 16. Irrigation canals, Denver, Colo. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to May 4.
June 1. Irrigation canals, etc., Glendive, Mont. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 18.

SEWERAGE.

Apr. 6. Sewers, Alliance, O. ..... Mar. 30
Apr. 7. Sewer system, New York, N. Y. ..... Mar. 16
Apr. 8. Sewer outlet, etc., Milwaukee, Wis. ..... Apr. 6
Apr. 10. Sewers, Scottsville, Mich. ..... Apr. 6
Apr. 10. Sewers, Cincinnati, O. ..... Mar. 23
Apr. 10. Sewers, Menominee, Mich. ..... Mar. 23
Apr. 10. Sewers, Toledo, O. ..... Mar. 30
Apr. 10. Sewers, Scottsville, Mich. ..... Mar. 30
Apr. 10. Sewer system, Regina, N. W. T. ..... Mar. 30
Apr. 10. Sewer tile, Renfrew, Ont. ..... Mar. 30
Apr. 18. 6½ miles sewers, New Orleans, La. ..... Feb. 16
Advertised, Eng. News, Feb. 16 to April 20.
Apr. 20. Sewers, Wilton, N. H. ..... Apr. 6
Advertised, Eng. News, April 6 and 13.
May 1. Sewer, Lexington, Ky. ..... Mar. 30

STREETS AND ROADS.

Apr. 6. Paving and curbing, Danville, Ill. ..... Mar. 30
Apr. 6. Grading, Hillsboro, Ore. ..... Mar. 30
Apr. 8. Macadamizing, St. Joseph, Mo. ..... Mar. 30
Apr. 8. Sidewalks, concrete, Seattle, Wash. ..... Apr. 6
Apr. 10. Streets, La Fayette, Ind. ..... Mar. 23
Apr. 10. Macadamizing, Menominee, Mich. ..... Mar. 23
Apr. 10. Sidewalks, Delaware City, Del. ..... Mar. 16
Advertised, Eng. News, Mar. 16 to Apr. 6.
Apr. 10. Road, Ft. Schuyler, N. Y. ..... Mar. 30
Apr. 10. Paving, asphalt, Cincinnati, O. ..... Mar. 30
Apr. 10. Sidewalks, cement, Salt Lake City, Utah. ..... Mar. 30
Apr. 10. Paving, brick, Port Chester, N. Y. ..... Apr. 6
Apr. 10. Paving, asphalt, New Orleans, La. ..... Apr. 6
Apr. 10. Paving, firebrick, Uhrichsville, O. ..... Mar. 30
Apr. 11. Paving, asphalt, New Brighton, N. Y. ..... Mar. 30
Apr. 14. Creosoted block, Minneapolis, Minn. ..... Mar. 16
Apr. 12. Paving, etc., Brooklyn, N. Y. ..... Mar. 30
Apr. 14. Paving, brick, Janesville, Wis. ..... Mar. 30
Apr. 14. Paving, etc., Cincinnati, O. ..... Mar. 23
Apr. 14. Road, shell, Ft. Mott, N. J. ..... Mar. 23
Apr. 14. Paving, brick, Paris, Ill. ..... Apr. 6
Advertised, Eng. News, Apr. 6.
Apr. 14. Road, West Boylston, Mass. ..... Apr. 6
Advertised, Eng. News, Apr. 6.
Apr. 15. Paving and sewers, Barberton, O. ..... Apr. 6
Advertised, Eng. News, Apr. 6 and 13.
Apr. 15. Roads, Sullivan, Ind. ..... Mar. 23
Apr. 15. Paving, brick, East Cleveland, O. ..... Mar. 30
Apr. 16. Paving, brick, Reading, Pa. ..... Apr. 6
Apr. 17. Roads, gravel, Rensselaer, Ind. ..... Apr. 6
Apr. 17. Road, Pomona, N. C. ..... Apr. 6
Advertised, Eng. News, Apr. 6 and 13.
Apr. 17. Sidewalks, Montgomery, Ala. ..... Apr. 6
Apr. 17. Paving, asphalt, Cincinnati, O. ..... Mar. 30
Apr. 17. Macadamizing, Perrysburg, O. ..... Mar. 30
Apr. 18. Grading, etc., La Crosse, Wis. ..... Mar. 30
Apr. 18. Paving, brick, Mankato, Minn. ..... Apr. 6
Apr. 18. Sidewalks, cement, Redoak, Ia. ..... Apr. 6
Apr. 18. Paving, Escanaba, Mich. ..... Apr. 6
Advertised, Eng. News, Apr. 6.
Apr. 20. Grading, Gettysburg, Pa. ..... Mar. 30
Apr. 21. Paving, Cincinnati, O. ..... Mar. 23
Apr. 24. Macadamizing, Cincinnati, O. ..... Apr. 6
Apr. 24. Paving, etc., Wellsville, O. ..... Apr. 6
Apr. 25. Grading, Indianapolis, Ind. ..... Apr. 6
Apr. 26. Paving, Hoboken, N. J. ..... Apr. 6
Apr. 30. Road, Vicksburg, Miss. ..... Mar. 23
May 1. Paving, Evansville, Ind. ..... Mar. 30
May 2. Roads, Bloomfield, Ind. ..... Apr. 6
June 1. Paving, brick, Fremont, O. ..... Mar. 16
No date. Sidewalks, Ogden, Utah. ..... Mar. 23

MISCELLANEOUS CONTRACTS.

Apr. 6. Creo-resinating lumber, New York, N. Y. ..... Mar. 23
Apr. 6. Fire apparatus, Ann Arbor, Mich. ..... Mar. 30
Apr. 8. Dredging, Dry Tortugas, Fla. ..... Mar. 23
Apr. 8. Ditch work, Kenton, O. ..... Mar. 23
Apr. 8. Railway, Yazoo & Miss. Valley. ..... Mar. 9
Apr. 10. Steel rails and fishplates, Australia. ..... Mar. 9
Apr. 10. Channel improvement, Bermuda. ..... Jan. 26
Advertised, Eng. News, Feb. 2.
Apr. 10. Dam, canals, etc., Denver, Colo. ..... Feb. 16
Advertised, Eng. News, Feb. 16 to Mar. 30.
Apr. 10. Lumber, Washington, D. C. ..... Mar. 23
Apr. 10. Garbage boats, New Orleans, La. ..... Apr. 6
Apr. 11. Cement, timber, etc., Ottawa, Ont. ..... Apr. 6
Apr. 11. Machinery, etc., Washington, D. C. ..... Mar. 16
Apr. 11. Foundry equipment, Washington, D. C. ..... Mar. 16
Apr. 11. Pumps, files, vises, etc., Wash., D. C. ..... Mar. 30
Apr. 12. Monument, Andersonville, Ga. ..... Mar. 16
Apr. 12. Pier work, New York, N. Y. ..... Apr. 6
Apr. 13. Riprap stone, New York, N. Y. ..... Apr. 6
Apr. 13. Sprinkling carts, New York, N. Y. ..... Apr. 6
Apr. 13. Portland cement, Washington, D. C. ..... Mar. 9
Advertised, Eng. News, Mar. 9 to April 13.
Apr. 14. Breakwater, Freeport, N. S. ..... Apr. 6
Apr. 15. Breakwater, Devil Island, N. S. ..... Apr. 6
Apr. 15. Ditch, Lafayette, Ind. ..... Apr. 6
Apr. 15. Cruisers, Washington, D. C. ..... Apr. 6
Apr. 15. 100 miles railway, Tidewater Ry. ..... Mar. 2
Advertised, Eng. News, Mar. 9 to Apr. 6.
Apr. 15. Electric crane, Puget Sound, Wash. ..... Mar. 9
Apr. 15. Quarrying, etc., Washington, D. C. ..... Mar. 30
Advertised, Eng. News, Mar. 30.
Apr. 17. Dredging, New York, N. Y. ..... Apr. 6
Advertised, Eng. News, Apr. 6 and 13.
Apr. 17. Board walk, Atlantic City, N. J. ..... Apr. 6
Advertised, Eng. News, Apr. 6.
Apr. 17. Dredging, New York, N. Y. ..... Apr. 6
Apr. 18. Motors, wire rope, etc., Wash., D. C. ..... Apr. 6
Apr. 18. Boilers, Columbus, O. ..... Apr. 6
Apr. 18. Pier, wall, Edgewater, N. J. ..... Apr. 6
Apr. 18. Dredging, Ellis Island, N. Y. ..... Apr. 6
Apr. 17. Dam, Pittsburg, Pa. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 20.
Apr. 17. Dam, foundations, etc., Pittsburg, Pa. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 20.
Apr. 18. Dam, foundations, etc., Pittsburg, Pa. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 20.
Apr. 18. Tunnels, Penn., N. Y. & L. I. Ry. ..... Mar. 30
Advertised, Eng. News, Mar. 30 to Apr. 13.
Apr. 18. Levee, Pointe a la Hache, La. ..... Mar. 30
Apr. 19. Dam, foundations, etc., Pittsburg, Pa. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 20.
Apr. 19. Saws, planers, scrapers, etc., Wash., D. C. ..... Mar. 23
Apr. 19. Dam, San Francisco, Cal. ..... Mar. 23
Advertised, Eng. News, Mar. 23 to Apr. 20.
Apr. 24. Garbage plant, Los Angeles, Cal. ..... Apr. 6
Apr. 25. Rails, wire, lathe, etc., Washington, D. C. ..... Mar. 30
Apr. 27. Trap rock, Holyoke, Mass. ..... Apr. 6
Apr. 29. Dock, Burlington, Vt. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
Apr. 29. Ditch work, Monticello, Ill. ..... Mar. 30
May 1. Electric railway, Toronto, Ont. ..... Mar. 30
May 1. Machinery, etc., Washington, D. C. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 2. Track tools, metals, etc., Wash., D. C. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 3. Steam shovels, Washington, D. C. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 3. Dam work, Wheeling, W. Va. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 3. Dredging, Newport, R. I. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 3. Jetty, Newport, R. I. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
May 6. Breakwater work, Cleveland, O. ..... Apr. 6
Advertised, Eng. News, Apr. 6 to May 4.
July 1. Electric railway, Chicago, Ill. ..... Apr. 6
Sept. 1. Steel manufacture, New South Wales. ..... Mar. 23
Advertised, Eng. News, Mar. 30 to June 29.
No date. Electric railway, Corry, Pa. ..... Apr. 6
Advertised, Eng. News, Apr. 6.

## RAILWAYS.

*The names of parties awarded contracts are printed in capital letters.*

AMERICAN, MEXICAN & PACIFIC.—W. C. BRADBURY & CO., of Denver, Colo., have contract, we are informed, for building this railroad. It will be 250 miles long. Work of construction may be delayed. Lyman Bridges, Tucson, Ariz., is Pres. and Ch. Engr.

ASHLAND & TUG RIVER.—Right-of-way has been granted to company by Ashland, W. Va., city council. R. M. Broas is Pres., and A. M. Kelley, Secy., at Huntington, W. Va.

ATLANTIC COAST LINE.—WILLIAM T. COTTER, of Jacksonville, Fla., has been awarded contract for construction of extensive freight yards in that city. Est. cost, $80,000.

BESSEMER & LAKE ERIE.—Contract has been given to C. A. SIMS & CO., Harrison Bldg., Philadelphia, for an extension from Girson Junction, Pa., to Newcastle, 18 miles. The estimated cost is $500,000. Work is to be started at once. There will be a steel bridge over Slippery Rock creek over 200 ft. high. This new line will connect the United States Steel Corporation with its five large plants at Newcastle. A branch may be built to Youngstown. H. T. Porter, Greenville, Pa., is Ch. Engr.

BUFFALO, ROCHESTER & PITTSBURGH.—Company plans to spend from $2,500,000 to $3,000,000 in double-tracking the line near Bradford, Pa., including the elimination of bad grades and curves. Work is to be begun early this spring. J. M. Floeckh is Ch. Engr., Rochester, N. Y.

CHICAGO, ROCK ISLAND & PACIFIC.—Contract will be awarded at once for constructing line from Traskwood to Cossett, Ark. John F. Stevens, second vice-Pres., is in charge of construction, at Chicago, Ill.

COAL RIVER.—A charter has been granted, it is reported, to this company to build a line from Point Pleasant, W. Va., to St. Albans and Coal River, and thence to Bramwell. The incorporators are A. D. MacCorkle, Henry G. O. Chilton, M. M. Williamson and Samuel Stephenson, of Charleston, W. Va.

CONWAY, COAST & WESTERN.—Location surveys from Conway, S. C., to Marion, 34 miles, have been completed. In addition to the section from Conway to Cool Springs, 11 miles, which is under construction, bids were to have been received April 1 for the remaining 23 miles to Marion. F. A. Burroughs is Pres. and R. E. Beaty, Ch. Engr., Conway, S. C. This railway will extend from Sumter, S. C., to Conway, 75 miles.

CORNING, KEUKA LAKE & ONTARIO.—The contract for building 35 miles of line from Savona, N. Y., on the Erie, north through Sonora, Bradford and Wayne to Penn Yan, on the New York Central, 30 miles, has been awarded to ARCHIBALD KENNEDY, of Pittsburg. Charles S. Haynes, 80 West Hannah St., Hamilton, Ont., will be Supt. of Construction. Noted July 20 March 30.

DELAWARE & EASTERN.—The State Railroad Commission on April 7 will pass upon application of this company to build a railway from East Branch to Andes and Arkville, N. Y. Noted on March 23.

DETROIT SOUTHERN.—The foreclosure sale to terminate the receivership has been set for May 1 at Springfield, O. Noted on March 30.

DULUTH, MISSABE & NORTHERN.—This line will be extended to the Mississippi River from Hibbing, Mich., 30 miles. H. L. Dresser, Duluth, Minn., is Ch. Engr.

EAST ST. LOUIS, WATERLOO & CHESTER.—Incorporated in Illinois to build a railroad from East St. Louis, Ill., to Waterloo and Chester, passing through the counties of Saint Clair, Monroe and Randolph. Capital stock, $25,000. Incorporators: Thomas M. Chase and Tyron J. Woodward, Saint Louis, Mo.; James P. Slade and A. B. Garrett, East Saint Louis; Edward F. Schoening, Columbia, Ill.

ENID, BEAVER, GUYMON & WESTERN.—Company has been chartered to build a line from Enid, Okla., via Guymon, Okla., to Dorsey, N. Mex., about 400 miles. The stockholders and trustees are R. B. Quinn, J. H. Langston, T. O. James and J. C. Williamson, of Guymon, Okla.; T. P. Braidwood, George H. Healy and J. E. George, of Beaver; W. I. Drummond, of Enid, Okla.; and J. C. Gleiscester, of New York.

ERIE.—The contract for double-tracking on main line, for nine miles, from Mansfield, O., to Ashland, has been let to KIDDER & McCOURT, of Akron, O.

ESQUIMAULT & NANAIMO.—The Canadian Pacific Railway, which has acquired the Esquimault & Nanaimo railroad on Vancouver Island, probably will extend the line from Nanaimo to Quatsino Sound. It is planned to make Quatsino the passenger and mail port for the Canadian Pacific steamers between Vancouver and Japan. Joseph Hunter, Ch. Engr. and Gen. Supt., at Victoria, B. C.

GREAT NORTHERN.—A report from Spokane, Wash., states that bids will be received for grading a roadbed from Midway, B. C., to Greenwood, B. C., about 14 miles. O. S. Bowen is Resident Engr., at Spokane.

A contract has been let to A. GUTHRIE & SON, of St. Paul, Minn., for a new line from Wingate to Wisconsin-Minnesota state line, five miles.

JAMESTOWN & YOSEMITE VALLEY.—Announcement is made that this company, incorporated with $1,000,000 capital stock, in California will build a railroad into Yosemite Valley. T. S. Bullock of San Jose, is Pres.; S. D. Freshman, of Jamestown, Vice-Pres.; S. H. Smith, Gen. Freight and Passenger Agent; W. C. Potts, Supt., and C. N. Hamblin, Auditor of the Sierra Railroad Co., are directors. Company will build from Jamestown, Cal., to Mariposa, 40 miles. Branches will be built. E. F. Henderson, Oakland, Cal., is Resident Engr., of Santa Fe.

LICKING RIVER.—The property of the Yale Lumber Co., which includes the Licking River Railroad and 12,000 acres of timber land in Kentucky, has been sold to the Licking River Co. of Farmers, Ky. J. S. Bischel, of Chicago, is interested. The railroad extends from Yale to Salt Lick, Ky., 12 miles, and from Yale to Morgan, Ky., 14½ miles. It may be extended to Owingsville or Mt. Sterling, Ky. E. R. Miller, Yale, Ky., is Gen. Mgr.

LOWVILLE & BEAVER RIVER.—FRED. S. EASTON, JR., of Lowville, N. Y., and J. P. BROWNELL, of Carthage, N. Y., will complete the construction of the Lowville and Beaver River railroad. The contract for building the road was originally awarded to the late James T. Campbell, of Lowville, under whose supervision a large amount of work was done last season.

LONG ISLAND RY.—The Brooklyn "Eagle" is authority for the statement that "the Brooklyn Grade Crossing Commission has approved the final plans for the removal of the tracks of the Long Island Ry. from grade on the entire line of the road from Bay Ridge and from Manhattan Beach to Atlantic Ave. at East New York, and northerly to the boundary line between Kings and Queens counties at Cooper Ave., ten miles." These plans were prepared jointly by the engineer of the commission and the engineer of the Long Island Railroad. The estimated cost of the work under modified plans is $5,955,342, of which $5,627,875 is for doing away with grade crossings and $327,467 for streets not yet opened. The expense is to be borne half by the city and half by the railroad. Work may begin at once. J. R. Savage, Jamaica, N. Y., is Ch. Engr. Noted on March 9.

MARITIME COAL & RAILWAY COMPANY.—F. H. Mitchell, Purchasing Agt., Chignecto, N. S., states that this company proposes to build a railroad from Chignecto Colliery to Cold Spring Head, N. S., a shipping port on Northumberland Straits, a distance of 34 miles. The line will pass through Amherst and Tidnish. Surveys are said to have been made. David Mitchell is Gen. Mgr., at Chignecto, N. S.

MISSISSIPPI.—The contract for building the Ross Lumber Co.'s railroad has been let to T. J. GLADWELL and others of Merrill, Miss. Work will begin at once. Noted on March 23.

MISSISSIPPI EASTERN.—It is reported that an extension is contemplated from Quitman, Miss., to the Tombigbee River. About 32 miles of railway are to be built. J. W. Glynn, Quitman, is Land Agent.

MISSOURI, KANSAS & TEXAS.—An extension is proposed from Granger to Trinity, 130 miles, via Davilla, Cameron, Hearne, Madisonville. J. W. Petheram, Dallas, Tex., is Ch. Engr.

MISSOURI PACIFIC.—The survey for the Missouri Pacific road between Springfield and Crane, Mo., has been completed. The contract for the grading is expected may be let soon.

MISSOURI, OKLAHOMA & GULF.—Contracts have been awarded, it is said, to J. W. HOFFMAN & CO., of Kansas City, for grading, and to the WISCONSIN BRIDGE & IRON CO. for bridge building on line which will run from Joplin, Mo., via Wagoner, Correta, Muskogee, Henryetta, Dustin and Coalgate, Ind. T., to Denison, Tex., with a branch from Henryetta to Shawnee, Okla. T., 57 miles. Surveys for the entire line are finished and grading is reported completed from Muskogee south to the north fork of the Canadian River, 55 miles. The line from Muskogee to Correta, ten miles, has already been finished. G. F. Morse, Kansas City, Mo., is Ch. Engr.

NORFOLK & WESTERN.—THE VAUGHN CONSTRUCTION CO., of Portsmouth, O., has been awarded the contract for grading for the new double-tracking between Trenton, O., and a point near Hanging Rock. C. F. Losh, Portsmouth, O., is Asst. Engr.

PENNSYLVANIA.—The Pennsylvania Coal & Coke Co. will build a railway from Irvonia, Pa., to point within one mile of Ebensburg, where a new town will be established.

PENNSYLVANIA RY.—Contracts have been awarded to the McCLINTIC-MARSHALL CONSTRUCTION CO. by W. H. Brown, Ch. Engr. for the construction of the steel work for the Duquesne, Pa., elevated line at a cost of about $500,000. Work will be completed by fall.

SPOKANE INTERNATIONAL.—We are informed by Daniel C. Corbin, Spokane, Wash., that surveys are well under way. Contracts will be let at once. The $4,000,000 bond issue is subscribed and capital for construction is all secured. E. G. Taber, Spokane, is Ch. Engr. E. J. Roberts is Gen. Mgr. Chester W. Chapin, of New York, is Pres. The line will be 140 miles long, running from Spokane to Rochdum, Idaho, and thence to the international boundary line at Moyie, B. C.

THE NEW YORK, NEW HAVEN & HARTFORD.—Projects under consideration, which probably will be started soon, are the double-tracking of line between Needham and West Roxbury, Mass.; elimination of grade crossings at Mansfield and Attleboro; connection from present station to Fox Point, Providence, on the Providence division. B. T. Wheeler, Asst. Engr. of Construction, is in charge.

The four-tracking of the Shore Line probably will be started soon. At present many bridges are being replaced by heavier structures to permit of heavier rolling stock.

VINITA & NORTHWESTERN.—Company has finished surveys from Vinita to Coffeyville, Kan., 45 miles. This line is being promoted by F. A. McClelland, of St. Louis, Mo., it is reported. F. G. Jonah, Vinita, Ind. T., is Ch. Engr.

WESTERN PACIFIC.—Contracts for construction are reported to have been let to KILPATRICK BROS. & COLLINS, of Lincoln, Neb.; the UTAH CONSTRUCTION CO. of Ogden, and MACARTHUR BROS. CO., of Chicago. This company has absorbed the Butte & Plumas and the Indian Valley railroads, chartered to build in Butte and Plumas counties, Cal., from Oroville via the North Fork canyon of Feather River to a point near Quincy, 45 miles. On the route surveyed for Western Pacific the Sierra Mountains are to be crossed at an elevation of 5,000 ft. at the top of a 120-mile grade. Press reports state that the Western Pacific has also bought control of the Boca & Loyalton, which runs from Boca, Cal., to Beckwith, 40 miles. Noted on March 23. G. L. Dillman, Safe Deposit Bldg., San Francisco, is Ch. Engr. A late report states that WALSTON H. BROWN & BROS., 40 Wall St., New York, have general contract for building entire line.

WHEELING & LAKE ERIE.—This railway is to be double-tracked this year, according to a reported statement by President Joseph Ramsey. R. Blickensderfer, Cleveland, O., is Gen. Mgr.

## STREET AND ELECTRIC RAILWAYS.

*The names of parties awarded contracts are printed in capital letters.*

NEW HAVEN, CONN.—We are informed that the WESTINGHOUSE, CHURCH, KERR & CO., 8 Bridge St., New York, have received contract from Consolidated Ry. Co. for installing 900 KW. plant with boilers, condensers and necessary piping for same. L. Farnham, Ch. Engr.

SCHENECTADY, N. Y.—It is announced that the Schenectady Ry. Co. will begin work of constructing Cohoes and Saratoga extensions early in the spring. Plans are now in course of preparation. The two extensions as now planned will aggregate 20 miles of road. C. C. Lewis is Ch. Engr.

SYRACUSE, N. Y.—The Syracuse & Suburban Railroad is in the market, it is stated, for several open cars for use this summer. The company is also considering the enlargement of its power equipment. Chas. E. Hubbell is Gen. Mgr.

McKEESPORT, PA.—Council has granted a franchise to Pittsburg & Westmoreland Ry. Co., which will build a line between this city and Irwin, with a branch to Herminie. James Bryan is Ch. Engr., Park Bldg., Pittsburg.

SHAMOKIN, PA.—Plans and specifications for new Shamokin Extension Electric Ry. Co.'s line to Sunbury have been forwarded to New York, where bids will be secured for building of line. Cost about $450,000, including equipment.

CORRY, PA.—Bids are wanted for construction of Findley Lake & Northeast Ry. Noted in issue of March 23. (Advertised, Engineering News.)

YORK, PA.—Work of constructing electric ry. of York County Traction Co., between Hanover and Littlestown, will soon be started. A. H. Hays, Gen. Mgr., York.

ALLENTOWN, PA.—The Mauch Chunk, Lehighton & Slatington Electric Ry. Co. has voted in favor of $75,000 in bonds, to be used in the purchase of new equipment and for improvements.

BRADFORD, PA.—An ordinance has been passed by Common Council granting to Olean, Rock City & Bradford Electric Ry. Co. the right to use city streets for a period of ten years. J. W. Barnes is Supt., Bradford.

NEW HOLLAND, PA.—The New Holland, Terre Hill & Intercourse Electric Ry. Co. will increase its capital stock to build extension from Blue Ball to Terre Hill. Contract for work will commence in a few weeks. J. F. Seidel, Jr., Secy., New Holland.

STAUNTON, VA.—The Middlebrook & Newport Railway & Electric Co. will construct a railroad or electric railway from a point near Staunton to Newport. Late reports say company propose to extend line to Rockbridge Baths. Howard Echols is Pres.

ATLANTA, GA.—Thos. K. Glenn, Vice-Pres. of Georgia Railway & Electric Co., writes us that this company will spend about $125,000 in adding to its transportation equipment and tracks. Electrical equipment has been purchased from the GENERAL ELECTRIC CO., and the company is doing its own track work.

JACKSONVILLE, FLA.—The Jacksonville Electric Co. will extend and improve its street railway in that city. Work will commence May 1. W. H. Tucker is Mgr. Dan McDonald is Ch. Engr.

MARION, ALA.—An electric railroad will be built between this city and Selma, a distance of 25 miles, at a cost of $20,000. W. A. S. Hayhie, the Mayor, can give information.

DAYTON, O.—The Dayton & Northeastern Ry. Co., of Dayton, has been incorporated by Hugo Cook and others. It proposes to build an electric railway from Dayton to Kenton, passing through Montgomery, Miami, Clark, Champaign, Logan, Shelby and Hardin counties. Capital, $100,000.

STEUBENVILLE, O.—Plans and estimates for electrical equipment of Steubenville, Wellsburg & Wheeling Traction Co.'s proposed line from Wheeling to Middle Ferry, W. Va., to Steubenville are being prepared by Westinghouse Electric & Mfg. Co., of Pittsburg, Pa.

KALAMAZOO, MICH.—A contract for construction of 60 miles of electric railway, to connect Kalamazoo and Grand Rapids, with branch lines to Otsego, Allegan, Shelbyville and Gun Lake, has been let to WESTINGHOUSE ELECTRIC & MFG. CO., of Pittsburg, Pa., by Grand Rapids & Kalamazoo Valley Ry. Co. Cost about $1,500,000.

BLOOMINGTON, ILL.—The Bloomington, Clinton & Decatur Interurban Traction Co. has filed articles of incorporation in McLean, De Witt and Macon Counties. The company will shortly commence the construction of a chain of interurban railways throughout central Illinois. Incorporators; Jerome J. Danforth, Chas. Ogden, Wm. Smith, all of Chicago; H. W. Knight, of Kansas City, Mo., and others. Capital stock, $250,000.

CHICAGO, ILL.—Bids will be received until July 1 for construction and installation of a system of municipal street railways on certain streets. Address Council Committee on Local Transportation.

WAUKEGAN, ILL.—It is announced by the Chicago & Milwaukee Electric Ry. Co. that the double track line, now being built at this place, will be extended through to Milwaukee on a private right of way. S. A. Jennings, of Highwood, Ill., is Ch. Engr.

EAST ST. LOUIS, ILL.—The City Council has granted the East St. Louis Suburban Ry. Co. permission to lay a double track on 15 streets and on Bond Ave., to replace single track now in use. It is also rumored that this company will be changed to standard gage in order that a new interurban line can use their tracks in this city.

KANKAKEE, ILL.—The Kankakee & Western Electric Co., capital $15,000, has been incorporated to construct an electric railway from Kankakee to Milk Grove. Incorporators: John Small, Chas. B. Campbell and Chas. E. Foley.

LA CROSSE, WIS.—The St. Paul Street Ry. Co., it is said, will build an electric interurban line to Winona, Minn., which will connect with a line proposed between La Crosse and Winona, by La Crosse Street Ry. Co.

IOWA CITY, IA.—The Cedar Falls & Iowa Interurban Ry. Co. will extend its line through to Muscatine, connecting Cedar Rapids with Davenport. This branch will be known as the Iowa City & Eastern and will be 30 miles long.

BELLE PLAINE, IA.—Articles of incorporation have been filed with Recorder of Benton County for Iowa Valley Interurban Ry. Co., with principal office in Belle Plaine. H. R. Mosnat, of Belle Plaine, is Gen. Mgr. F. C. French, Assoc. M. Am. Soc. C. E., and one of the professors in engineering department of Iowa State College at Ames, made the location survey. The company proposes to build an interurban railway from Belle Plaine to Vinton, a distance of 28 miles. The necessary franchises have been secured and two surveys made.

DES MOINES, IA.—H. H. Polk, Pres. Inter-Urban Ry. Co., authorized the statement that the company would build this year to Woodward and to Perry. Contracts will be let at once. F. S. Cummins is Ch. Engr.

MINNEAPOLIS, MINN.—The contract for road work on new Lake Minnetonka line has been awarded by Twin City Rapid Transit Co. to FOLEY BROS., Gilfillan Block, St. Paul, Minn.

MINNEAPOLIS, MINN.—The Minneapolis Street Ry. Co. has applied to the authorities at Washington for permission to enter military reservation at Fort Snelling.

JONESBORO, ARK.—We are informed that an electric railway and lighting system is proposed for this city. The ordinance has been placed on second reading and not yet passed. The approximate length of the system will be about ten miles. Dr. L. W. Copeland is interested. Previously noted.

EL PASO, TEX.—Richard Burges, Atty. for El Paso Valley Water Users' Association, has applied to County Commissioners for franchise through county for an electric railway which the association intends to build. The proposed road is to run from Anthony, New Mexico, to El Paso, a distance of 18 miles, and thence down the Rio Grande valley a distance of 45 miles below El Paso. The Association has also planned to build a telephone line.

SPOKANE, WASH.—Contract for grading the first 22 miles of Spokane & Inland Electric Railway from this city to Palouse Country has been awarded to PORTER BROS.

MINERAL WELLS, TEX.—W. H. McGrath and W. L. Crawford, who obtained a franchise for construction of an electric street railway system in Mineral Wells, will not only operate lines in the town, but will build a line up one of the adjacent mountains to a pleasure and summer resort.

CHATHAM, ONT.—The Wallaceburg & Lake Erie Ry. Co. expects to commence work of building an electric railway between Chatham and Wallaceburg within two months. The power house will probably be located here.

## LIGHT, HEAT AND POWER PLANTS.

*The names of parties awarded contracts are printed in capital letters.*

LACONIA, N. H.—THE LACONIA ELECTRIC LIGHT CO. has been awarded contract for lighting the city for ten years. Bids were received on March 27, as advertised in Engineering News. Contract price was $7,000. J. G. Chamby is Chn. Street Lighting Com.

HOLYOKE, MASS.—Bids are said to have been received as follows for constructing a new municipal gasholder: Crane-Kemper Co., Philadelphia, Pa., holder in steel tank (capacity 750,000 cu. ft.), $52,750, concrete tank $32,950. Deily & Fowler, of Philadelphia, Pa., holder in steel tank (750,000 cu. ft.), $54,800. Bartlett, Hayward & Co., Baltimore, Md., masonry tank (751,000 cu. ft.), $40,000, with additions $2,188 extra, holder in steel tank (same capacity) $80,000. Riter-Conley Mfg. Co., Pittsburg, Pa., holder in steel tank (750,000 cu. ft.), $65,770 (with steel stairway around tank); R. D. Wood & Co., Philadelphia, Pa., holder in steel tank (753,000 cu. ft.), $51,200, extra handrails $350; if city will furnish steam at 90 lb. pressure, $650 will be deducted; same firm will furnish holder in masonry (tank to be built by city), $33,750, with extras for stairway $680, and handrails $350; if city furnishes steam for construction $300 will be deducted. W. H. Snow is Mgr.; A. W. Darby is Ch. Engr.

MANSFIELD, MASS.—Town has voted to appropriate $4,000 for the municipal lighting plant; $1,500 issue of bonds was authorized. The lighting system is to be extended to West Mansfield. James Fancy is Ch. Engr. Geo. L. Foster is Electric Light Comr.

CENTRAL FALLS, R. I.—Estimates are asked by city on erection of a lighting plant, suitable for needs of a city of 20,000 population. A copy of the plan of the city, drawn to scale and showing the location of proposed poles, lights, etc., will be sent upon request.

UTICA, N. Y.—The Hudson River Water Power Co. and the Hudson River Electric Water Power Co., of Mechanicsville, N. Y., plan to build a large turbine power-house in this city, which will furnish power for the Utica & Mohawk Valley Ry. Co. Eugene L. Ashley is Pres. of Water Power Co., at Glen Falls, N. Y. C. E. Parsons is Ch. Engr., at Glen Falls. J. D. Hilliard and H. H. Lawton, Elec. Engrs., are connected with company. Contracts have been awarded and work will begin at once.

OSWEGO, N. Y.—Bids are asked until 10 a. m., May 2, for installing interior and exterior lighting at Fort Ontario. W. M. Coulling, Q. M. (Advertised, Engineering News).

ALBANY, N. Y.—We are informed that a petition from certain interests on the Sacandaga River has been laid before the River Improvement Commission in connection with project to harness the Sacandaga, Racquette and Black Rivers, in the Adirondacks, and utilize the 240,000 HP., with $10,000,000 a year, now unused. Nothing even of a tentative nature has been planned and it is not likely that any definite steps will be taken until the next legislature meets, in 1906. The commission consists of H. A. Van Alstyne, State Engr. and Surveyor; Julius M. Mayer, State Atty.-General; Nicholas Van Vracken Franchot, State Supt. of Public Works; De Witt C. Middleton, Forest, Fish and Game Comr., and Wallace C. Johnson, of Niagara Falls, Consulting Engr. As previously noted, it is proposed to build a dam, costing from $300,000 to $500,000, on the west branch of the Sacandaga River, above Hadley, and one on the east branch of the same stream at Griffin. These dams will raise the water in Piseco Lake from 5 to 10 ft., and provide storage for 10,000,000,000 gallons of water.

CLINTON, N. Y.—Governor Frank Higgins has signed bill authorizing this city to issue $7,000 of bonds for an electric light plant.

SCRANTON, PA.—Mayor Connell is reported interested in plan to establish a municipal lighting plant.

LYNCHBURG, VA.—A committee has under consideration plan to construct a municipal electric light plant.

RICHMOND, VA.—Bids were asked until April 4 for a light, heat and power plant for Virginia State capitol grounds and buildings. A. J. Montague is Chn. Capitol Bldg. Com.

BERKELEY SPRINGS, W. VA.—Henry N. Hanna and Eugene L. Norton, of Baltimore, Md.; J. Frank Fields, of Hancock, Md.; Silas J. Hovermale, Romanus Hunter and T. H. B. Dawson, of Berkeley Springs, have incorporated the Berkeley Springs Light & Water Co., with a capital stock of $25,000, to erect an electric light and water plant.

LIBERTY, N. C.—City has granted franchise to W. M. White to construct and operate water-works and electric-light plant.

WINSTON-SALEM, N. C.—The plant of the Winston-Salem Gas and Lighting Co. will be improved and enlarged, it is reported in Tradesman "Bulletin." E. B. Jones is Pres.; W. H. Jenketh, Secy. and Treas., and B. N. Sullivan, Mgr.

EDGEFIELD, S. C.—It is proposed to construct an electric-light plant and water-works system in this city. J. W. Thompson is reported to be interested.

WILLISTON, S. C.—An electric light plant will be established here.

GAINESVILLE, GA.—The North Georgia Electric Co. will begin construction of a dam 35 ft. high and 600 ft. long at Wilson's Shoals, on the Chattahoochee River, for generating 2,500 HP. Power will be transmitted by electricity to Gainesville, five miles distant. About $150,000 will be expended.

ROSEDALE, MISS.—An electric-light plant may be built and operated in connection with the municipal water-works plant.

STARKVILLE, MISS.—City will vote on April 15 on the issuance of $8,000 of bonds for improving water-works and electric light plant.

DRESDEN, TENN.—Construction of electric light plant and water-works is planned. Bonds, for $10,000, may be issued.

JOHNSON CITY, TENN.—Legislature will be petitioned for authority to issue $250,000 of bonds for water-works and $50,000 for erecting an electric light plant.

DICKSON, TENN.—The city has voted to issue $6,000 of bonds for building an electric light plant. Noted on March 23.

KNOXVILLE, TENN.—Capital is said to have been secured for building a power plant for the Knoxville Power Co., on the headwaters of the Little Tennessee River. James B. Cahoon, Consult. Engr., 42 Broadway, New York, is said to have made survey.

NASHVILLE, TENN.—The Tennessee Power Co., with $100,000 capital stock, has been chartered. Cornelius Ackerman, William B. Dinsmore, Jr., Frederick F. Culver, Charles H. Hart, Thomas M. R. Meiklebam and Granville Whittesley are incorporators. Company will improve and develop water power of rivers and streams and manufacture and furnish electricity.

COLUMBIA, KY.—W. R. Meyers is reported to be interested in project to establish an electric-light plant here.

DANVILLE, KY.—The Danville Light, Power & Traction Co. will erect an electric light and power plant. E. R. Vincent, 814 State Life Bldg., Indianapolis, Ind., is Engineer-in-charge.

GALION, O.—The Crawford County Gas & Electric Co. has been incorporated by Selwyn N. Blake, of Galion.

NEWARK, O.—Ordinance is before Council, providing $15,000 for rebuilding the municipal electric-lighting plant. E. R. Corbin, is Ch. Engr.

TOLEDO, O.—A committee has been appointed to investigate plan to build a municipal lighting plant.

COLUMBUS, O.—The Pittsburg, Cincinnati, Chicago & St. Louis Ry. Co. will erect an electric-light plant in its yards here.

MUNCIE, IND.—The Citizen's Electric Light Co. has been incorporated, with $200,000 capital. Henry J. Keeler, William F. Warner, C. R. Hathaway and others are incorporators.

FRANKFORT, IND.—The Tipton, Frankfort & Attica Electric Traction Co. will erect a $100,000 power house and barn in this city, if granted a franchise to build its line.

LANSE, MICH.—Village may issue $10,000 of bonds for the construction of an electric-light plant. Philip Voetsch is Village Pres.

MENOMINEE, MICH.—F. T. FERNSTRUM, of Menominee, was awarded contract for gas-holder for the Menominee & Marinette Light & Traction Co. Other contracts were let as follows: JOHN STRIFFLER, of Marinette, the contract for building the concrete holder tank; gas machinery and apparatus, the GAS MACHINERY CO., of Cleveland; the benches and retorts, PARKER-RUSSELL CO., of St. Louis. Cost, $50,000. Edward Daniell is Mgr. of Traction Co., at Menominee.

HANCOCK, MICH.—City has taken up question of municipal lighting. Alderman John F. Ryan may be addressed.

GALESBURG, ILL.—PETER T. OLSON, of Galesburg, was awarded contract for a new power and heating plant for three school buildings, at $8,563. LEWIS & KITCHEN, of Chicago, have contract for its equipment, at $11,676.

JANESVILLE, WIS.—Bids are said to be requested until April 24 for lighting the city with electricity for a period of five years from July 10th, 1905. A. E. Badger is City Clk.

MILWAUKEE, WIS.—The Wisconsin River Traction & Power Co., recently incorporated, will erect a power plant at Rothschild. An interurban railway and $1,000,000 paper mill will be built. Neal Brown, G. D. Jones, Karl Mathie, John Mathie and others, of Wausau, Wis., are interested.

WALKER, MINN.—Bids are asked until April 17 by the village council for purchase of $4,000 bonds issued for the removal and extension of the electric-light and water plant. Charles Kinkele is Village Pres.

LAWRENCE, KAN.—F. A. Sharpe is reported to be backing project to combine the gas and electric light plants of this city, with the site and power of the dam across the Kaw River. He has a contract to furnish the city with natural gas. $260,000 is to be expended immediately, it is reported, on preliminary construction.

ROSEDALE, KAN.—R. A. Long and T. N. Barnsdall have been granted a natural gas franchise.

OMAHA, NEB.—The Omaha, Beatrice & Lincoln Interurban Ry. Co. will build a power plant at Columbus, on Loup River. E. C. Hurd, Lincoln, Neb., is Gen. Mgr.

LITTLE ROCK, ARK.—City council has passed an ordinance granting T. E. Hare, of Vanndale; John B. Jones, of Little Rock, and others, a franchise for a natural gas system, to cost $2,000,000.

BATESVILLE, ARK.—The Batesville Light, Heat & Power Co. will be organized here with a capital of $200,000. L. P. Caldwell may be addressed.

FORT WORTH, TEX.—George W. Armstrong and associates have applied for franchise to establish plant for furnishing buildings with steam heat. It is proposed to lay 6 and 8-in. pipes through the streets for conveying the steam from 600-HP. boilers to the buildings. Site is said to have been secured for the plant.

McKINNEY, TEX.—The contract for the municipal electric-light plant has been let to J. PAYTON HUNTER, of the Hunter Electrical Supply Co., of Dallas, at $6,500.

BALLARD, WASH.—The Ballard Electric Co. has been granted a new franchise. Extensions and improvements, which will cost $30,000, will be begun at once. F. L. Guptill is Ch. Engr.

BREMERTON, WASH.—Appropriation of $10,000 for electric light plant extensions at Puget Sound navy yard, has been made.

HARRINGTON, WASH.—William Brodie and James Shaw, of Rittsville, have applied for an electric light plant franchise.

SPOKANE, WASH.—I. Dornberg, Treas. of the Black Carbon Coal Co., has stated that if this company is granted a franchise, a complete steam-heating plant will be built. Capital stock is $500,000. Council will take action on application on April 25th.

TACOMA, WASH.—City may issue bonds for constructing an electric light and power plant on the Nisqually River, to cost $750,000. The Equitable Finance Co., Portland, Ore., of which Stuart Rice is local representative, has made proposal to establish the plant.

FAIROAKS, CAL.—A committee, composed of John McBain, Supervisor; John H. O'Keefe, George E. Meekins, James R. Doyle and Thomas Fitzgerald, have matter of an electric lighting plant and system under consideration.

MAYFIELD, CAL.—Several of the members of the Board of Trade have begun a movement to organize local capital for the purpose of establishing an electric-lighting and power plant for this vicinity. $12,000 has been pledged, it is reported.

COLTON, CAL.—It is reported that the directors of the Colton Gas Co. will issue $30,000 bonds to improve, extend and enlarge the plant.

HAILEY, IDAHO.—The Idaho Electric Supply Co. may spend 50,000 in improving its plant here.

ROSSLAND, B. C.—The West Kootenay Power & Light Co. will develop water power of Upper Falls of Kootenay River, at Bonnington. L. A. Campbell, Rossland, is Ch. Engr.

## BRIDGES.

*The names of parties awarded contracts are printed in capital letters.*

BOSTON, MASS.—Contract has been awarded to HOLBROOK, CABOT & ROLLINS, 1140 Tremont Bldg., Boston, for temporary bridge over Charles River to take the place of Craigie Bridge.

SPRINGFIELD, MASS.—We have received the following information relative to the character of river bottom at site of bridge across Connecticut River between Chicopee and West Springfield (advertised in Engineering News); also as regards the haul for material and whether there is storage room: The contract (page 6) places upon bidders responsibility in these matters based upon an examination of the locality. Borings made in each span showed the river bottom to be sand, clay and gravel, with no rock within reach. The piers will be surrounded by riprap as shown on plans. The railroad station is within 500 ft. of east end of bridge and there is what may be considered good storage room at either end, although the exact space which could be occupied would depend in some degree upon whether work is begun after the contractor for substructure has entirely finished his. However, in any case there would be sufficient storage room close to the site. Extreme high water is about Grade 59 and occurs in the spring. The riprap will probably not extend more than 15 ft. from base of pier. Depth of water is approximately as shown on general plans. The lowest point of river is about Grade 27. The average grade of bottom varies from about Grade 28 in spans Nos. 5 and 6 from east end, to about Grade 40 in span No. 1. Geo. F. Swain, Consult. Engr., Boston, Mass.

NEW HAVEN, CONN.—Bids are asked by C. W. Kelly, Cy. Engr., until April 10 for constructing a bridge and approaches on Kimberly Ave.

NEW YORK, N. Y.—Bids are asked by Geo. E. Best, Bridge Comr., until April 11 for partial reconstruction of Manhattan terminal of Brooklyn Bridge.

Bids will also be received at the same time and place for construction of University Heights bridge and approaches, across Harlem River.

BUFFALO, N. Y.—The contract for constructing substructure of Ohio St. bridge has been awarded to BARDOL & ROBERTS, of Buffalo, for $59,260. Francis G. Ward is Comr. Pub. Wks.

HARRISBURG, PA.—H. B. Shoemaker & Co., 17 South Ninth St., Philadelphia, have posted plans for estimates for a covered steel footbridge, 75 ft. long, and a covered walk 300 ft. long, to connect P. R. R. and P. & Railroad Co.'s stations at Harrisburg.

WASHINGTON, D. C.—Bids are asked by District Commissioners, until May 1, for construction of seven span steel bridge over Eastern Branch of Potomac River at foot of 11th St. east. (Advertised, Engineering News.)

CULPEPER, VA.—Contract has been awarded by Culpeper and Spottsylvania Counties to MORAVA CONSTRUCTION CO., 85th St. and Stewart Ave., Chicago, Ill., for construction of a steel bridge with steel approaches at Elys Ford, for $2,885.

The county of Culpeper has contracted with same company for three small bridges, at a total cost of $1,080. A. F. Brown, Culpeper County Surv.

RICHMOND, VA.—The OWEGO (N. Y.) BRIDGE CO. has been awarded contract for a bridge at Richmond, for $230,000.

BIRMINGHAM, ALA.—Bids are asked by Julian Kendrick, Cy. Engr., until April 15 for reflooring 21st St. viaduct.

CLEVELAND, O.—Bids are asked by County Commissioners until April 19 for the erection of steel bridges. Wm. H. Evers Engr.; Julius C. Dorn, County Clk.

DAYTON, O.—F. M. Turner, Cy. Engr., informs us that the contract for Herman St. bridge superstructure was awarded to NEW CASTLE BRIDGE CO., of Indianapolis, Ind., for $47,880. Mr. Turner also states that plans are being prepared for a concrete bridge at Washington St.

CLEVELAND HEIGHTS, O.—Bids are asked by Wm. G. Phare, Vil. Clk., 402 American Trust Bldg., Cleveland, until April 25 for extending concrete arch on Euclid Heights Boulevard. Wm. H. Evers Engr. Co., Engrs., 2317 Arcade Bldg., Cleveland.

PERU, IND.—County Commissioners will receive bids until May 3 for construction of a new steel bridge over Wabash River; est. cost, $40,000.

INDIANAPOLIS, IND.—Bids are asked by County Commissioners until April 25 for bridge over Buck Creek in Franklin Township. Cyrus J. Clark, County Audr.

INDIANAPOLIS, IND.—It is stated that bids will be received by County Commissioners until April 15, 10 a. m., for buckle plates for completion of bridge over White River, on Washington St.

MANISTEE, MICH.—Bids were received March 30 as follows, for removing present drawbridge at Maple St. and building new drawbridge, approaches, substructure and protection work: Milwaukee (Wis.) Bridge Co., $34,975; Modern Steel Structural Co., Waukesha, Wis., $35,253; Massillon (O.) Bridge Co., $38,149; Joliet (Ill.) Bridge & Iron Co., $37,483; Groton (N. Y.) Bridge Co., $37,793; Huston & Cleveland, Columbus, O., $44,305; King Bridge Co., Cleveland, O. $43,297; John P. Cowing, Cleveland, O., $96,595; Scherzer Rolling Lift Bridge Co., Chicago, Ill., double leaf, $34,000 and $36,000, single leaf, $37,000 and $39,000. Geo. B. Pike, Cy. Engr.

CHICAGO, ILL.—The contract for a double track bascule bridge to be constructed over south fork of Chicago River has been awarded to the AMERICAN BRIDGE CO., Monadnock Block, Chicago, for superstructure, and to THOS. PHEE & CO., for substructure. W. M. Hughes, Consult. Bridge Engrs., 144 Van Buren St.

SPRINGFIELD, ILL.—The Baltimore & Ohio R. R. Co., it is reported, will erect a steel bridge, 815 ft. long to replace timber trestle that crosses Okaw River near here. Cost, about $80,000. D. D. Carothers is Ch. Engr., Baltimore, Md.

CEDAR RAPIDS, IA.—McCONACHIE & SONS, of Rock Island, Ill., have been awarded contract for construction of a concrete bridge across Cedar River.

DES MOINES, IA.—The contract for construction of north two spans of Sixth Ave. bridge was awarded March 27 to JOHN DEAN & CO., of Chicago, Ill., for $26,200. John W. Budd is Cy. Engr.

MINNEAPOLIS, MINN.—The Iowa Central Railroad announces that over $100,000 will be expended this year for construction of bridges. Howard G. Kelley is Ch. Engr., Minneapolis.

WICHITA, KAN.—County Commissioners, March 20, let five bridge contracts. Two were for pile bridges in Norton Township, to WICHITA CONSTRUCTION CO., for $2,188; one for pile bridge in Erie Township, to WALKER MORAN CO., for $309, and two for steel bridges to CANTON (O.) BRIDGE CO., for $2,778.

ST. LOUIS, MO.—The Board of Public Improvements will open bids for rebuilding of bridge over River des Peres at Clayton Road on April 14.

FORT BENTON, MONT.—Petition for county bridge over Thirty-mile Creek at Harlem has been granted by County Commissioners and County Clerk authorized to advertise for bids according to plans and specifications submitted by County Surveyor.

FREMONT, NEB.—County Commissioners have ordered repairs on ten or twelve county bridges, to be made as soon as weather permits.

DENVER, COLO.—Bids, including plans and specifications, are asked by Board Public Works until April 2; for constructing a two-span reinforced concrete bridge, 170 ft. long, across Platte River at West Colfax Ave. Bids are to include the removal of old bridge and its foundations.

FORT COLLINS, COLO.—County Commissioners March 25 awarded contracts to ROLLER & SONS, of this city, for construction of 11 new bridges across Cache La Poudre River. Most of the bridges will be built of steel.

WENATCHEE, WASH.—The INTERNATIONAL CONTRACT CO., of Seattle, has been awarded contract for a suspension bridge over Columbia River at Wenatchee. The bridge will be 1,500 ft. in length and 105 ft. above the river. Cost, about $75,000.

The same company has been awarded contract for four steel spans for railway use in Alaska.

SPOKANE, WASH.—We are informed that bids will be received by Board Public Works until April 15 for construction of a 110 ft. steel span at Havermale St. Plans and specifications on file in office of A. F. Gill, Cy. Engr.

TACOMA, WASH.—Bids are asked by I. M. Howell, County Audr., until April 21 for construction of bridges and pile trestle approaches across an arm of Henderson Bay, according to plans and specifications on file in office of County Surveyor.

PORTLAND, ORE.—Contracts for repair of Burnside St. bridge were let March 24 to three firms at aggregate amount of $11,540. Awards as follows: Diamond Sand Co., retaining walls, $745; Paquet & Glebish, embankment and planking, redecking of road, and wood block paving, $7,200; J. B. Tillotson, piles, approach, and sidewalks on iron bridge, $3,595.

DUNCANS MILLS, CAL.—The North Shore R. R. Co. is contemplating the erection of an $18,000 railroad bridge across Russian River at this place. B. H. Fisher is Ch. Engr., Sausalito, Cal.

SACRAMENTO, CAL.—See under "Streets and Roads."

MITCHELL, ONT.—The MITCHELL BRIDGE CO. has secured the contract for two steel bridge superstructures in Howick Township, a steel bridge over Bayfield River and a bridge in Mornington Township.

LOS ANGELES, CAL.—Bids are asked by Board of Supervisors until April 10, 2 p. m., for construction of two concrete steel culverts in Nevada Ave.

SAN JOSE, CAL.—JOHN DOYLE was the lowest bidder, at $23,327, for construction of a stone concrete bridge at Los Gatos.

QUINCY, CAL.—Bids are asked by Board of Supervisors until May 1 for construction of a steel bridge across Clover Creek. H. P. McDeth, Clk.

NAPA, CAL.—Bids are asked by Board of Supervisors until April 12, 11 a. m., for building a masonry bridge across creek in district No. 4. M. W. Collins, Clk.

## BUILDINGS.

*The names of parties awarded contracts are printed in capital letters.*

BANGOR, ME.—Frank A. Bourne, 70 Kilby St., Boston, has prepared approved plans for a public library building for this city. $126,000 is now available. Bids will be received soon. Shepley, Rutan & Coolidge, Boston, are Consulting Archs.

CONCORD, N. H.—The legislature has appropriated $200,000; $100,000 for the year 1905, and the same amount for 1906, to be used by the State Hospital in enlarging present and erecting new buildings. Dr. Chas. P. Bancroft is Supt.

NEW BRITAIN, CONN.—The South Congregational Church may erect a new church to cost over $500,000. Rev. H. C. Ide is pastor.

BROOKLINE (BOSTON POST-OFFICE STATION), MASS.—Town will be asked to appropriate $201,484 for public schools.

SAUGUS, MASS.—Town may build a $100,000 high school. Charles E. Stevens is Supt. Schools.

BOSTON, MASS.—Bids were received March 27 for constructing a primary school house (including heating, ventilating, electrical work and plumbing) in Perrin St., Roxbury. ANGUS McDONALD, 161 Devonshire St., Boston, was awarded contract, at $158,820.

BROOKLYN, N. Y.—CLARKE & STOWE, 15th Ave. and 71st St., have contract for building school No. 8, at $253,700.

NEW YORK, N. Y.—WILLIAM L. CROW, 287 Fourth Ave. has received the general contract to construct the new building for the Engineers' Club at 32-34 West 40th St. Whitfield & King, 160 Fifth Ave., are Archs. It will be 13 stories in height, 50 × 98. Estimated cost, $500,000. Samuel Weiskopf, of 51 Wall St., is Structural Engr.

NEW YORK, N. Y.—The Geo. A. Fuller Co., Fuller Bldg., was lowest bidder on construction of building for engine company No. 6, on Liberty St.

NEW YORK, N. Y.—NORCROSS BROS. COMPANY, Worcester, Mass., have been awarded contract for supplying granite for new terminal station for the Pennsylvania Ry. Co. Contract price is said to be nearly $2,000,000.

WEST CHESTER, PA.—Seymour and Paul A. Davis, 907 Walnut St., Philadelphia, are preparing plans for a $70,000 high-school building here.

PHILADELPHIA, PA.—Milligan & Weber, Archs., 520 Walnut St., are preparing plans for a bachelor apartment house to be built at Pine and Broad Sts., for E. Kleinsmith.

SHENANDOAH, PA.—Bids are asked by C. Schmidt, Mgr. Home Brewing Co., until 2 p. m., April 12, for the erection of a 4-story brick hotel.

DELAWARE CITY, DEL.—We are informed that ten bids were received on March 29 for installing screens on buildings at Fort Mott. The New Jersey Blind Co. was lowest bidder, at $111,300. Grand Rapids Furniture Co.'s bid was $119,080.

WASHINGTON, D. C.—Secretary Hitchcock, of the Department of the Interior, has approved new plans for the Freedman's Hospital, which will cost $270,000. Contracts will be let soon.

Wood, Donn & Demin, Archs., 808 17th St., N. W., have plans for a female seminary, to be built on Florida Ave. Cost about $75,000.

WASHINGTON, D. C.—It is reported that bill appropriating $580,000 toward construction of the Senate office-building has been passed.

It is reported that Sunderland Bros., Washington Savings Bank Bldg., have purchased site in Fernwood on which to erect 60 residences. Total cost, about $1,500,000.

WASHINGTON, D. C.—The War Department is stated to have rejected bids for the erection of mess hall and dormitory. Baldwin & Pennington, Baltimore, Md., are Archs. Plans probably will be revised and new bids advertised.

FORT MONROE, VA.—Paul J. Pelz, Arch., Corcoran Bldg., Washington, D. C., is preparing plans for a military school for this place. It will cost $250,000.

DANVILLE, VA.—The Sublett Lithia Water Co. will spend $150,000 this summer, it is reported, in erecting a hotel at Sublett Lithia Springs. B. L. Sublett is Secy.

HUNTINGTON, W. VA.—J. B. Stewart, Arch., post-office box 432, is preparing plans for a hotel, to be built on Fourth Ave. and Tenth St. It will be five stories high.

FT. McPHERSON, GA.—Bids asked by Capt. B. B. Buck, Constructing Q. M., until April 25, for the construction of separate mess rooms and kitchens for eight companies of infantry and band.

MACON, GA.—It is stated that W. J. Beeland, who is estimating on the enlargement of the U. S. court-house and post-office here, would like to have prices on steel and iron work, both structural and ornamental, as well as work and concrete and tile fireproofing.

PENSACOLA, FLA.—The Palafox Street Methodist Church is having plans prepared for the erection of $60,000 edifice. B. D. Glenn is pastor.

MONTGOMERY, ALA.—NICHOLAS ITTNER, of Atlanta, Ga., has been awarded contract for New Exchange Hotel. Cost, $400,000. The building will be owned by the James E. Hickey Hotel Co., of Atlanta. W. F. Denny, Atlanta, is Arch.

ANNISTON, ALA.—Breeding & Whildin, Archs., Birmingham, have plans for a Presbyterian Synodical college at Anniston. To be built of brick and stone. Cost, $55,000.

BIRMINGHAM, ALA.—The Warrant Warehouse Co. has been organized with $200,000 capital stock to erect a fireproof cotton warehouse, for which site has been purchased. W. D. Nesbitt is Pres.; H. K. Miller is Secy.

NEW ORLEANS, LA.—Harry Watcham is reported to have organized a company for the erection of 10-story hotel. Cost, $750,000.

WEST POINT, MISS.—We are informed that it is proposed "to build a modern and up-to-date opera house and secret order hall combined. Information is desired from competent architects and builders, as to plans, specifications and material for the complete job. Building estimated to cost $60,000 to $75,000 complete." H. S. Dodenhoff, Secy. of the Board of Trade, may be addressed.

KNOXVILLE, TENN.—The Knoxville Banking Co. will build an 8 to 12-story fireproof bank and office building. Ben. T. Broome is Arch. W. H. Gass is Pres.

The Mechanics' National Bank will erect a 10-story bank and office building of fireproof, steel construction. Thos H. Morgan, Atlanta, Ga., is Arch. S. B. Luttrell is Pres.

LOUISVILLE, KY.—It is reported that plans for the Lincoln Savings Bank building, to be erected at Fourth and Market Sts., will be changed so as to provide for a 15-story structure instead of a 10-story building, as originally intended. John M. Atherton is Pres.

COVINGTON, KY.—Schofield & Walker, Archs., are preparing plans for a school building for the board of education. Jas. C. Metcalfe is Clk. Cost, about $80,000.

DAYTON, O.—The Y. M. C. A. will soon erect a $350,000 building at Third and Ludlow Sts. E. L. Shuey is Pres.

YOUNGSTOWN, O.—Bids are asked until noon, April 11, by Rev. M. P. Kinkead, 811 Oak St., for building a parochial school. Plans by the Ginther Architectural Co., Akron, O. An isolated heating plant is planned. Estimated cost, $65,000.

WOODSFIELD, O.—County will vote upon proposition to issue bonds for a new court-house.

SPRINGFIELD, O.—General Manager C. E. Schaff and Ch. Engineer George Kittridge, of the Cleveland, Cincinnati, Chicago & St. Louis Ry. system, have submitted plans to Mayor C. J. Bowlus and City Engineer W. H. Sieverling for the new passenger and freight station, to cost $300,000, with conditions which probably will be agreed to by the city, it is said. Construction will be started soon.

CINCINNATI, O.—The Fourth National Bank building, plans for which are being prepared by D. H. Burnham & Co., Archs., Railway Exchange Bldg., Chicago, Ill., will be ten stories high, about 40 × 120 ft. Cost, $200,000.

Frank M. Andrews, Arch., Conover Bldg., Dayton, O., has prepared plans for the Cincinnati Realty Co., which is to erect a $1,000,000 hotel.

Tietig & Lee, Archs., Commercial Tribune Bldg., are preparing plans for a new building for the technical department of the Cincinnati University. Estimated cost, $75,000. Chas. W. Dabnew is Pres.

CLEVELAND, O.—Geo. B. Post, Arch., 33 East 17th St., New York, is preparing plans for a 4-story bank building, 138 × 110 ft., for the Cleveland Trust Co. C. Maurice is Pres. Cost, $500,000.

BLOOMINGTON, IND.—The board of trustees of the State University of Indiana wants plans for a library building, to cost $100,000. To be of fireproof construction, built of Bedford stone. J. W. Cravens is Secy.

DETROIT, MICH.—Pardridge & Blackwell will erect a $1,000,000 department store on block on Farmer St., between Gratiot and Monroe Aves.

DETROIT, MICH.—Dr. Martin Campbell, 8 Monroe Ave., is reported to be having plans prepared for a theater.

GRAND RAPIDS, MICH.—Charles O. Skinner, of Grand Rapids, and William C. Grobbiser, have purchased a site for a furniture exposition building. It will cost $200,000.

CHICAGO, ILL.—Webster Tomlinson, Arch., has drawn plans for a warehouse to be erected by Mrs. Altha E. Best on Jackson Boulevard. Cost, $300,000. F. W. McKinney, Mgr. Royal Trust Co. Loan Department, has the matter in charge.

C. A. Eckstrom, Arch., 1001 Tacoma Bldg., is preparing plans for furniture warehouse, to be erected at 460 Illinois St., for Furniture Exhibition Co., of 1411 Michigan Ave. Probable cost, $500,000.

Jarvis Hunt, Arch., 1407 Monadnock Bldg., is preparing plans for a fireproof brick building for the Trust & Savings Bank. Cost, about $80[illegible]

Armour & Co., Union Stock Yards, will erect a fireproof office building of reinforced concrete construction. Cost, $200,000.

CHICAGO, ILL.—R. E. Schmidt, Arch., 52 Washington St., will prepare plans for an addition to the Chicago Athletic Clubhouse, to be erected at 12 Madison St.

James Gamble Rogers, Arch., Ashland Block, is preparing plans for a 3-story apartment building, to be erected on North State, Schiller and Astor Sts., for J. Waller.

MILWAUKEE, WIS.—Buemining & Dick, Pabst Bldg., have been commissioned to prepare plans for North Division high school. $135,000.

MANITOWOC, WIS.—C. H. Tegen, Arch., Pabst Bldg., has prepared accepted plans for Manitowoc county court-house. It will cost about $150,000.

CLINTON, IA.—Bids are asked by John M. [illegible] & Son, 315 Howes Blk., until noon, April 15, for erection of Y. M. C. A. building.

ST. PAUL, MINN.—One Peterson, Representative introduced a bill in House providing for an appropriation of $320,000 for construction of new building for State Agricultural College.

Daniel E. Ward and E. L. Masqueray, Archs., 156 Fifth Ave., have been commissioned to prepare plans for proposed $1,000,000 Cathedral of St. Paul.

MINNEAPOLIS, MINN.—Clarence Johnson, 712 Manhattan Bldg., has prepared plans for new [illegible] building at University of Minnesota. It will cost $500,000.

OMAHA, NEB.—Bids will be asked for soon on proposed new Catholic cathedral. It will cost about $2,000,000. Thomas R. Kimball, McCague Bldg., Arch.

Edward Rosewater and J. L. Brandeis & Sons will erect a 10-story hotel at 17th and Douglas Sts. John Latenser, Jr., is Arch. Cost, about $400,000.

LITTLE ROCK, ARK.—Frank W. Gibb, Arch., 2-4 Reider Building, Little Rock, Will receive bids until April 10 for the completion of Young Men's Christian Association building.

HOUSTON, TEX.—Bids are asked by R. N. Little, Secy. School Board, until April 10, for erection of 12-room brick school building. L. S. Green, Arch., Commercial Bank Bldg.

EDNA, TEX.—THE DAWSON CONSTRUCTION CO., of Houston, has contract for $45,000 court-house for Jackson County. C. H. Page, Austin, Tex., is Arch.

HOUSTON, TEX.—Bids are asked until April 8 for building St. Agnes Academy. L. S. Green is Arch.

NORMAN, OKLA.—Bids are asked by F. O. Miller, County Clk., until April 29 for the erection of $40,000 court-house and jail.

DENVER, COLO.—Quayle & Rice, Archs., have drawn plans for Swedish consumptive sanitarium. It will cost $300,000. Dr. C. A. Bundsen, of Denver, is Pres.; E. W. Norlin is Secy.

STEILACOOM, WASH.—Bids will be received soon by Proctor & Farrell, Tacoma, Wash., for two additions to the insane asylum at Steilacoom, for the state board of control, Olympia, Wash. Cost, $100,000.

LOS ANGELES, CAL.—We are informed that no definite plans have been prepared for proposed new public library. Mary L. Jones is Librarian.

LOS ANGELES, CAL.—Fred. R. Dorn, Arch., Douglas Bldg., has plans for a brick building to be erected on Olive St. Cost, $100,000.

The California Cancer Sanitarium Association has been incorporated with a capital stock of $200,000 and soon will begin the erection of a hospital building to cost about $100,000. Negotiations are in progress for the purchase of the present site at San Pedro and 22d Sts.

A. B. Benton, Arch., 114 Spring St., will prepare plans for a Y. M. C. A. building. Cost, $300,000.

OAKLAND, CAL.—Plans will be prepared for an addition to the Le Conte school on Rugsell St.

BERKELEY, CAL.—The Regents of the University of California have authorized work begun on the foundation of the new library for the University, for which the late Charles S. Doe left a bequest of $700,000.

SACRAMENTO, CAL.—Senate has passed bill appropriating $150,000 for a sanitarium for treatment of curable cases of tuberculosis.

SAN FRANCISCO, CAL.—Site has been approved for new public library. It is located at Van Ness Ave., Hayes, Franklin and Fell Sts.

BOISE, IDAHO.—The Senate has passed bill providing for the erection of new capitol in Boise. It will cost $350,000.

WINNIPEG, MAN.—John D. Atchinson, of Atchinson & Edbrooke, Archs., 90 Washington St., Chicago, is preparing plans for a $100,000 apartment house to be built in this city.

## WATER SUPPLY AND IRRIGATION.

*The names of parties awarded contracts are printed in capital letters.*

BUCKFIELD, ME.—The Buckfield Water, Power & Electric Light Co. is to build a system of water-works at Buckfield, Maine. The contract for furnishing the material and constructing the works has been let to Charles N. Taylor, 1 Waban St., Wellesley, Mass., who is in the market for 14,000 ft. of 10-in. pipe; 5,000 ft. of 4-in. pipe; 21 hydrants; 6 and 10-in. gates and gateboxes. Mr. Taylor is Engineer and Treasurer of the company, and H. A. Irish is President and F. R. Dyer, Clerk, both of Buckfield.

WILTON, N. H.—See under Sewerage.

BRANFORD, CONN.—We are informed that contract for 4½ miles of water pipe extensions, extending from Branford to Short Beach, for Branford Lighting & Water Co., T. H. Golding, Supt., has been let to BUNTING CONSTRUCTION CO., Long Island City, N. Y. A. W. Sperry, New Haven, Conn., was Des. Engr.

BRISTOL, VT.—Preliminary surveys and estimates are being made for water supply system. Several different sources will be investigated for gravity system, pumping plant will also be considered. Lloyd & Mann, Concord, N. H., are Engrs.

CAMBRIDGE, MASS.—We are informed that $250,000 appropriation for pipe line between Hobbs Brook and Fresh Pond has not been made as yet. Freeman C. Coffin, 53 State St., Boston, Mass., is Consult. Engr., and Edwin C. Brooks, Supt. W.-W., is official in charge.

HOLDEN, MASS.—We are informed that contract for constructing intake for local water-works has been let to THOMAS HENNESSEY, Jefferson, Mass. This is in addition to contract for laying cast-iron pipe, which was awarded to Nichols & Magee Construction Co., Taunton, Mass., as was mentioned in our last week's issue. Henry W. Warren is Chn. W. Comrs.

ONEIDA, N. Y.—We are informed that bids will be taken in about three weeks for additional storage reservoir for water-works. Work will require new dam 31 ft. high and [illegible] ft. long, about ½-mile 18-in. cast iron pipe to connect with old system, six 18-in. valves and one 16-in. [illegible]. Plans are to be completed in about two weeks. We are also informed that nothing has been done definitely in regard to water softening plant. Geo. S. Tebbits, City. Engr.

NORTH HEMPSTEAD, N. Y.—Bids are asked by Town Board, Monroe S. Wood, Town Clk., Roslyn, until April 12, for supply of water, by means of street hydrants, along public highways, streets and avenues of Great Neck Water Supply District. (Advertised, Engineering News.)

NORTH TONAWANDA, N. Y.—Contract for installing two new boilers in city pumping station has been let to GILLIS ENGINE & MACHINE CO., for $3,385.

READING, PA.—City Water Board has awarded following contracts: CAMDEN IRON WORKS, cast-iron pipe and special castings, $3,820; water gates, $711; ROEDER-KINCAID MFG. CO., cast-iron gate boxes, $730; RENSSELAER MFG. CO., 20 fire hydrants, $680; A. P. SMITH MFG. CO., 250½-in. corporation cocks, $120; John E. WEIDNER, laying water pipes, etc., $2,000.

WASHINGTON, D. C.—Bids are asked by F. E Leup, Comr. Indian Affairs, until April 25, for constructing water tank and tower at Lower Brule Agency, S. Dak.

LINEVILLE, ALA.—We are informed that city has granted franchises for water-works to Jno. S. Jemison and associates. Matter of construction will not be taken up for 12 or 18 months. No engineers had been employed. Supply is to be from spring, ¼-mile distant from city.

ABERDEEN, MISS.—Following contracts for installation of water-works and sewerage (bids received March 22), are stated to have been awarded: J. M. Acker, Mayor; A. L. Dabney, Greenwood, Miss., Engr.: Power house and reservoir, S. H. BERG, Aberdeen; Corliss engine, ALLIS-CHALMERS CO., Milwaukee, Wis.; laying water mains, T. J. BYRNE, St. Louis, Mo.; laying sewer pipes, SULLIVAN & LONG, Bessemer, Ala.; elevated tank, CHICAGO BRIDGE WORKS; cast iron water pipes, U. S. CAST IRON & FOUNDRY CO., Chattanoogo, Tenn.; pumps, McGOWAN PUMP CO., Cincinnati, O.; hydrants and valves, RENSSELAER MFG. CO., Troy, N. Y.; boilers and heaters, WALSH & WEIDNER BOILER CO., Chattanooga, Tenn. The awards aggregate $73,500.

MANSFIELD, O.—Bids were opened March 25 by Board Public Service for furnishing 100 tons 4-in. and 27 tons 6-in. cast-iron pipe, Massillon Iron & Steel Co., Massillon, O., being low bidder for former and J. B. Clow & Co., Chicago, Ill., low bidder for latter. About $6,000 is to be expended in extension of water mains, work on which is to commence about May 1.

CINCINNATI, O.—Water-Works Commissioners have awarded contract for furnishing large water pipe and special castings to U. S. CAST IRON PIPE & FOUNDRY Co., for $417,566.

CINCINNATI, O.—Bids are asked by Board Trustees, Commissioners Water-Works, Robert B. Foster, Clk., until May 2, for laying about one mile of 16-in. and 24-in. cast iron pipe.

CLEVELAND, O.—Following bids were received March 29 by Board Public Works for 10,000 ⅝-in. water meters: Henry R. Worthington, New York, $5.90; Neptune Meter Co., Long Island City, N. Y., $6.; Pittsburg Meter Co., East Pittsburg, Pa., $6.50; National Meter Co., New York, $10.40.

HARTFORD CITY, IND.,—Contract for drilling two new wells at water plant has been let to AYRES BROS., Hartford City.

MICHIGAN CITY, IND.—Bids are stated to be asked by Edw. J. Heise, Cy. Clk., until April 17 for 10,000 ft. of 6-in. water pipe, 1,000 ft. of 12-in. water pipe, hydrants and connections and sufficient lead to be used in connecting said pipe.

MARQUETTE, MICH.—We are informed that Board of Fire and Water Commissioners, John R. Kern, Supt. and Secy., has not made any decision regarding replacing present steam pumps by electrical pumps.

GUTHRIE CENTER, IA.—We are informed that city will be ready about April 20 for bids for new steel water tank 13 × 50 ft., with foundation. Plans and specifications will be at office of W. W. Hyzer, Mayor, April 1.

MILLVILLE, MINN.—Bids are stated to be asked by W. H. Kiley, Vill. Recdr., until April 20, for 1,530 ft. of 6-in. and 180 ft. of 4-in. water pipe, four 4-in. hydrants, gate valves and boxes, etc.

NORTHOME, MINN.—Bids are reported asked by Chas. Field, Vill. Recdr., until April 15 for the construction of water-works.

MINNEAPOLIS, MINN.—Water Works Committee awarded following contracts, March 29, for furnishing supplies: Gate valves, J. B. CLOW & SON; fire hydrants, R. D. WOOD & CO.; water pipes, U. S. CAST-IRON PIPE & FOUNDRY CO.; special castings, NORTHWESTERN FOUNDRY.

HOISINGTON, KAN.—Bids are asked by J. Q. Ragan, Cy. Clk., until April 20 for furnishing material and constructing water-works; bids are also asked for construction of 16 ft. by 100 ft. standpipe. Burns & McDonnell, Engrs., 509 Dwight Bldg., Kansas City, Mo.

FORT ASSINIBOINE, MONT.—We are informed that following bids were received March 25 by Capt. J. B. McDonald, Q. M., for furnishing boiler, pumps, water mains, etc., for this fort: W. D. Lovell, Minneapolis, Minn., $9,499.00; Healy Plumbing & Heating Co., St. Paul, Minn., $9,725.00; Allan Black Company, St. Paul, Minn., $9,868.00; Coombs & Duncan Bros., Great Falls, Mont., $10,758.00; Dwyer Plumbing & Heating Co., St. Paul, Minn., $11,000.00.

GLENDIVE, MONT.—Bids are asked by U. S. Reclamation Service, Frank E. Weymouth, Engr., Glendive, until June 1, for construction of about 34 miles of canal, with headworks, conduits, spillways, sluice gates, culverts and other appurtenances, involving excavation of about 3,700,000 cu. yds. earth, 3,500 cu. yds. rock, furnishing and driving 7,900 ft. piles and 30,000 ft. of sheet piles, placing 18,210 cu. yds. riprap, 11,500 cu. yds. concrete and 1,500,000 lbs. of steel. (Advertised, Engineering News.)

KANSAS CITY, MO.—Bids will be received at the office of Cudworth, Axtell & Co., Engrs., 616 Kansas City Life Bldg., until April 10, 2 p. m., for labor and material necessary to construct a cooling tower of about 1,000 gallons capacity per minute.

SEATTLE, WASH.—International Contract Co., at $8,500 was low bidder, March 25, for water main in E. Cherry St. and 29th Ave.

SEATTLE, WASH.—Bids will be received by C. B. Bagley, Secy. Bd. Pub. Wks., on either April 8 or 15, for constructing water main on Western Ave., and other streets, at an estimated cost of $95,000. Work requires 10,850 ft. 20-in. cast-iron pipe; 15,000. ft. 20-in. wood pipe; 23 20-in., two 10-in., two 8-in., and two 6-in. gates, 25 hydrants and 65 M. ft. B. M. lumber.

EVERETT, WASH.—Everett Water Co. has awarded contract for furnishing 18,000 ft. 8-in. and 12,000 ft. 6-in. water main to A. J. AGNEW, Everett.

PORT TOWNSEND, WASH.—Bids were received March 24 by Capt. Geo. H. Penrose, Q. M., U. S. A., for construction of pumping and storage plant for water supply at Fort Casey, three lowest bidders being as follows: McInnis & Hargton, Port Townsend, $27,655; McInnis & Cotton, Port Townsend, $29,704; Pacific Iron & Steel Works, Seattle, Wash., $30,718.

LOS ANGELES, CAL.—Bids are asked by County Supervisors, C. G. Keyes, County Clk., until May 2, for furnishing all labor and material necessary for complete installation, including foundation, of a pumping plant on the Los Angeles County Farm, near Downey.

SAN FRANCISCO, CAL.—NORMAN B. LIVERMORE & CO., Rialto Bldg., San Francisco, Norman B. Livermore, Mgr., has secured contract for equipping the gate house for the Arrowhead Reservoir in southern California. It includes 40-in. pipes at the upper end branching to two 24-in. pipes below. They also have the contract for a Venturi meter for measuring the entire flow of the system, which will vary from 2,000 to about 4,000 miners' inches.

ORANGE, CAL.—We are informed that contract for extensions of city water-works has been let to S. J. Smith Machinery Co., Los Angeles, Cal. Extension is stated to include 60-ft. steel tower and 50,000-gallon redwood tank, 25-HP. gasoline engine, pumps, etc., 1,300 ft. 6-in., 2,800 ft. 8-in. and 400 ft. 4-in. casing, 10,000 ft. 2-in. and 2,000 ft. ¾-in. pipe and all necessary fittings. H. Wineken, Cy. Clk.

BISHOP, CAL.—Contract for constructing water works and sewerage for this city (bids opened March 20), is reported to have been let to STANLEY CONTRACTING CO., San Francisco, Cal., its bid being as follows: Water system, $19,630 with kalamined converse lock-joint pipe and $23,300 with standard screw pipe; sewer and drainage, $12,987.

WOODLAND, CAL.—Bids are asked by Chas. W. Pickard, Cy. Clk., until 5 p. m., April 7, for furnishing and delivering f. o. b. cars at Woodland, the following: 3,000 ft. of 4-in. lap-welded wrought iron water pipe, with screw joint, and with nominal weight per foot of 5.85 lbs.; three 4-in. gates; 3 crosses; 4 tees; 8 plugs; 4 elbows, all to be 4-in. screw joints; all of said pipe and fittings to be tarred or asphalted before delivery.

OGDEN, UTAH.—We are informed that Ogden Water-Works Co. has made no plans for new $50,000 reservoir; plans will not be made until later in the season, and possibly not at all.

QUEBEC, QUE.—Bids are asked by J. Gallagher, W.-W. Engr., until April 13, for supply of lead pipe, pig lead, iron and brass castings, cement, brick and drain pipe.

SUDBURY, ONT.—Coutract for electrical apparatus and pump for water-works has been let to CANADIAN ELECTRIC CO., Toronto, Ont., for $4,655.

## SEWERAGE.

*The names of parties awarded contracts are printed in capital letters.*

WILTON, N. H.—Bids are asked until noon April 20, for laying about 18,500 ft. of sewer pipe and appurtenances and about ½ mile of water pipe. I. S. Whiting, Chn. Sewer Com. (Advertised, Engineering News.) Noted on March 23.

GUTTENBERG, N. J.—We are informed that contracts for constructing sewers for this town, bids received March 22, have been let as follows: Sec. A, 2d St., to Bergenline Ave., AUGUST THIEL, $7,923; Sec. B., Bulls Ferry Road to Hudson Boulevard, Geo. J. HORUNG, $1,976. We are also informed that Sewer Commissioners have matter of Herman Ave. sewer in their hands. This sewer consists of 18-in., 24-in. and 30-in. vitrified pipe sewers and 42-in. ovel brick sewer; est. cost is $60,000. Harry R. Prosser is Cy. Engr.

LONG BRANCH, N. J.—The Long Branch Sewer Co., it is reported, will spend $16,000 in improvements, to include the construction of a new outlet to the sea. Wm. R. Warwich is Chn. Sewer Com.

LAKEHURST, N. J.—The Lakehurst Sewer Co. has been incorporated to operate a system of sewerage. Capital, $12,000. Dorman T. Warren, Lakehurst; Frederic Crosby, New York, N. Y.; Howard C. Warren, Princeton, and others are incorporators.

SAYRE, PA.—George Heverly, Chn. of Com., has submitted sewerage report to council. Estimated cost of system is $100,000.

PHILADELPHIA, PA.—Contracts to build sewers were awarded by Director of Public Works Peter Costello as follows: J. H. LOUCHHEIM, that part of Cohocksink system on Daunhin St., between Twelfth and Broad Sts., $50,000; DAVID PEOPLES, repairs to old sewers, $20,000; the work of reconstructing inlets was awarded to J. G. CONKLIN at $5,500.

NORFOLK, VA.—William Pannill, of Southern Contracting Co., and Sands, Lawson & Keys, contractors, have submitted estimates to Seventh Ward local board of improvements for construction of a sewer.

GREENVILLE, N. C.—It is proposed to construct a sewer system at a cost of $15,000. J. L. Wooten is Chn. Com. D. J. Whichard is Cy. Clk.

QUITMAN, GA.—City has voted to issue $50,000 of bonds for installing a sewer system and for paving streets. Work will be undertaken at once.

AUGUSTA, GA.—City has let contract to HALLAHAN & COSTELLO, at $8,072, for furnishing sewer pipe during 1905; W. F. BOWE, contract for curbing during the year. Both are local firms.

MERIDIAN, MISS.—The city has voted an issuance of bonds: $100,000 for street and sidewalk improvements; $35,000 for sewerage construction and $25,000 for funding.

PADUCAH, KY.—Sewer in Broadway will be extended to Fountain Ave. L. A. Washington, Cy. Engr., will submit plans to Board of Works.

CLEVELAND, O.—City may spend $110,000 in building the outlet section of the intercepting sewer.

Lowest bidders for building three sewers were as follows: Detroit St. sewer, W. J. Townsend, at $16,835; Ross St., James Duff & Co., at $30,497; Milford St. sewer, William Lehman, at about $35,000.

COLUMBUS, O.—We are informed that bids were received on March 29, as advertised for in Engineering News, for construction of central relief sewer. Section A. Plan "A" is for brick construction; "B" for brick invert, concrete top; "C" for reinforced concrete. The following bids were received: Jerome H. Louchheim, Philadelphia, A. $125,604; B. $111,847; C. $119,298. C. T. McCracken & Co., Cleveland, O., A. $117,744; B, $120,921; C, $110,110. Westwater & Casey, Columbus, O., A, $133,033; B, $126,100; C, $129,459. Burkhardt & Lehman, Cleveland, O., A, $130,451; B, $133,572; C, $133,736. Adams Bros, Zanesville, O., A, $132,442; B, $131,565; C, $131,375

TERRE HAUTE, IND.—Board of Public Works has ordered plans and specifications prepared for a sewer in Fourth Ave.

SOUTH BEND, IND.—A. J. Hammond, Cy. Engr., has completed report on a trunk sewer to be built along Bowman Creek. He estimates the cost at about $25,000.

EVANSVILLE, IND.—County Surveyor W. H. Temme and August H. Pfafflin, Cy. Surveyor, have surveyed route for the Kentucky Ave sewer. The estimated cost of sewer is from $250,000 to $300,000.

GREENSBURG, IND.—A sewer system and disposal plant will be constructed, at cost of $25,000.

MOLINE, ILL.—Contracts for about 3½ miles of small pipe sewers will be let soon, it is said. H. G. Paddock is Cy. Engr.

DUNDEE, ILL.—Henry Dakin, C. E., of Elgin, has submitted estimate of cost to build a sewer system in West Dundee. It will cost about $4,475.

JOLIET, ILL.—Contract for Collins St. sewer was awarded to SANDIFORD & MITCHELL, at $2,577; contract for Second Ave. sewer, ROBERT SHANNON, $3,761.

SCOTTSVILLE, MICH.—Bids are asked until 2 p. m., April 10, for constructing sanitary sewers. W. Freedy, Village Clk.

BELOIT, WIS.—R. R. Caldwell, Cy. Engr., has completed plans for sewers in the third ward and other sections of city. Total cost, as estimated, is $20,000.

RACINE, WIS.—ANDREW THOMSEN was awarded contract for sewer in Wisconsin St.

MILWAUKEE, WIS.—Bids are asked until 10:30 a. m., April 8, for constructing an outlet, outlet conduit and engine foundation for Kinnickinnie River flushing tunnel. Charles J. Poltsch, Chn. Comrs. of Public Works.

DES MOINES, IA.—Bids received for building Willow St. sewer have been rejected. New bids will be advertised.

MUSCATINE, IA.—STOLTZENAU & MAURER, of Muscatine, have contract for Papoose sewer extension, at $8,916.

DUBUQUE, IA.—Bee Branch sewer will be extended.

MINNEAPOLIS, MINN.—Sewers are to be constructed this summer in city wards as follows: First, $11,622; second, $11,546; third, $15,013; fourth, $11,808; fifth, $3,478; sixth, $1,533; seventh, $12,450; eighth, $22,564; ninth, $7,216; tenth, $8,445; eleventh, 9,937; twelfth, $5,674; thirteenth, $9,706.

NEW ULM, MINN.—Plans for a sewer system have been drawn by A. R. Starkey, Asst. Sanitary Engr., of St. Paul, Minn. Estimated cost is $23,000.

KANSAS CITY, KAN.—Board of public works has ordered construction of a sewer in Harrison Boulevard from Armour Boulevard south.

GRAFTON, N. DAK.—Legislature has granted an appropriation of $67,670 for Institution for Feeble Minded. Of this amount, $7,000 is for sewers.

EAST ST. LOUIS, MO.—We are informed that plans have been prepared by W. J. Crocken, Cy. Engr., for proposed intercepting and outlet sewer which will drain the entire city. Ordinance providing for expenditure of $750,000 for this work has been submitted to City Counselor J. M. Freels. Silas Cook is Mayor. George H. Meck is Asst. Cy. Engr.

BLACKWELL, OKLA.—Bids are asked by Geo. Hines, City Clk., until April 14, for constructing a sewer system. Burns & McDonnell, 509 Dwight Bldg., Kansas City, Mo., are Engrs.

SEATTLE, WASH.—Following bids were received March 25, C. B. Bagley, Secy. Bd. Pub. Wks., for constructing sewer in Rainer Ave.: (1) Sewers with reinforced concrete, having inverts lined with cement mortar, (2) sewer with reinforced concrete, inverts lined with brick; (3) brick sewer: F. McLellan & Co., 435 Burke Block, Seattle, (1) $74,725, (2) $79,180, (3) $82,606; Stirratt & Goetz, 406 Washington Block, Seattle, (1) $112,580, (2) $126,204, (3) $132,619. Contract probably will be awarded to F. McLellan & Co. on (2).

BISBEE, ARIZ.—Bonds for $100,000 may be issued for building a sewer system. City Council also is considering plans to grant sewerage franchise to a corporation.

FRESNO, CAL.—I. Teilman, Cy. Engr., has submitted a report on proposed sewer system. It is estimated that cost will be about $58,000.

SAN FRANCISCO, CAL.—A sewer in Mission St., to cost $15,000, will be built.

LOS ANGELES, CAL.—Bids for constructing one mile of storm water sewer were received by council as follows and referred to the board of public works: R. C. Lowell, $43,646; Thomas Wadsworth, $56,216 36; Hickox & Martin, $39,320; Tryon & Brain, $78,000; Stansbury & Powell, $75,000; P. A. Howard, $78,000.

## GARBAGE DISPOSAL—STREET CLEANING

*The names of parties awarded contracts are printed in capital letters.*

MECHANICSVILLE, N. Y.—Bill has been before legislature to authorize this town to spend $2,000 a year for garbage disposal.

NEW YORK, N. Y.—Bids are asked by John McG. Woodbury, Comr. Street Cleaning, 13 Park Row, until April 13, for furnishing and delivering 30 watering or sprinkling carts.

TROY, N. Y.—Board Contract and Supply has awarded contract for light garbage wagons with brakes to WATSON WAGON CO., Canastota, N. Y., for $821; contract for 20 wagons without brakes was awarded to same concern for $2,608.

LANCASTER, PA.—Following bids were received March 23 by Council Sanitary Committee for garbage collection: Wm. Reese, $1.95 per ton; A. Steinwandel, $1.93 per ton; J. Scott Dickey & Co., operating fertilizing plant, in this city, offered to remove and dispose of all garbage for $9,000 a year.

NEW ORLEANS, LA.—Bids are asked until April 10 for construction of 1, 2 and 3 garbage boats. Chas. R. Kennedy, Cy. Comptroller.

INDIANAPOLIS, IND.—Board Public Works has awarded contracts as follows for street sprinkling: District No. 1, HENRY NOLTING, at $16.84 per 10,000 sq. ft.; District No. 2, CHARLES ROEPKE, at $18.25; Districts 3 and 5, KENNINGTON BROS., at $12.70 each; District No. 4, FRED FUEHRING, at $13.80; District No. 6, KENNINGTON BROS., at $14.60.

LOS ANGELES, CAL.—Bids are stated to be asked by H. J. Leland, Cy. Clk., until April 24, for construction of a garbage crematory. At a previous opening of bids, March 14, the Decarie Mfg. Co., Minneapolis, Minn., offering to construct a plant for $70,864.

## STREETS AND ROADS.

*The names of parties awarded contracts are printed in capital letters.*

BOSTON, MASS.—Contract for grading, surfacing and other work at Revere Beach Parkway has been awarded by Metropolitan Park Commission to T. H. GILL & CO., 88 Broad St., Boston, for $17,407.

FALL RIVER, MASS.—The contract for granolithic sidewalks was awarded by Frank A. Thurston, Supt. of Sts., March 24, to BEATTIE & CORNELL, 32 North Quarry St., Fall River. Cost, about $5,000.

WEST BOYLSTON, MASS.—Bids are asked by Metropolitan Water and Sewerage Board, 1 Ashburton Place, Boston, Mass., until April 14, for building a road about one mile long at this place, requiring about 19,000 cu. yds. earth excavation and a small amount of drain pipe laying and paving. Frederick P. Stearns, Ch. Engr. (Advertised, Engineering News.)

CHILMARK, MASS.—LUIZI C. CARCHIA, 17 Tileston Place, Boston, was awarded contract for construction of 6,000 ft. of state highway in Chilmark, by State Highway Commission, 20 Pemberton Square, Boston, for $3,719.

NEW LONDON, CONN.—The LANE CONSTRUCTION CO., of Meridan, Conn., will probably receive contract for macadamizing Vauxhall St., in this city, being the only bidder for work.

ALBANY, N. Y.—The contract for paving of South Pearl St. was awarded March 27 to CAMERON & HAWN REALTY CO., for 41,037. Work will be commenced as soon as frost is out of the ground.

NEW YORK, N. Y.—The following were the lowest bidders for regulating and paving with asphalt block pavement on various streets (bids opened March 29): St. Nicholas Ave., HARLEM CONTRACTING CO., 41 Wall St., $57,076; Delancey St., J. E. QUINN, of Brooklyn, $99,139; Wadsworth Ave., HARLEM CONTRACTING CO., $48,639; First Ave., ASPHALT CONSTRUCTION CO., 207 Broadway, $22,779.

PORT CHESTER, N. Y.—J. A. Kirby & Son, Engrs., write us that bids for 2,000 sq. yds. brick pavement will be received by Clerk of Village until April 10.

HOBOKEN, N. J.—Bids are asked by Mayor and Council until April 26, for grading, curbing and paving on Adams St., with Belgian block pavement. James H. Londrigan, Cy. Clk.

HOLLY BEACH, N. J.—Borough Council has awarded contract for construction of new board-walk to GEO. A. BOURGEOIS, of Ocean City, N. J. Cost $25,000.

READING, PA.—Bids are asked by Board Public Works until April 16, for paving Washington and South Ninth Sts. with vitrified brick. Chas. G. Weltmer, Cy. Clk.

BALTIMORE, MD.—Bids were received March 29, by Harry Hooper, Cy. Register, for paving Calvert, Fayette and St. Paul Sts., with creo-resinate process wood blocks, the contract being let to U. S. WOOD PRESERVING CO., 29 Broadway, New York, for $27,328. B. T. Fendall, Cy. Engr.

POMONA, N. C.—Bids are asked by the Highway Commission of Guilford County, Greensboro, until April 17 for the construction of about nine miles of macadam road. W. C. Boren, Chn.; John L. King, Secy., Greensboro. (Advertised, Engineering News.)

GREER, S. C.—The city has voted to issue bonds for street improvements. Address the Mayor.

CHARLESTON, S. C.—The Board Public Works has awarded contract for stone curbing for the year to F. H. OPPER, of Savannah, Ga.

AUGUSTA, GA.—The contract for curbing in Augusta during 1,405 was awarded March 21 to W. F. BOWE.

MONTGOMERY, ALA.—Bids are asked by R. S. Williams, Cy. Treas., until April 17 (extension of time) for paving sidewalks with Schillinger or Hexagon block on portions of Virginia and Jefferson Davis Aves., and Jefferson St.

NEW ORLEANS, LA.—Martin Behrman, Mayor, will receive bids until April 10, 1 p. m., for paving with asphalt on portions of a number of streets. W. J. Hardee, Cy. Engr.

CINCINNATI, O.—Bids are asked by Board Public Service until April 24, for grading, curbing and macadamizing on Second Ave.

WELLSVILLE, O.—Bids are asked by Board of Public Service until April 24, for the improvement of Ninth St., involving 4,300 sq. yds. of paving, 1,600 cu. yds. grading, 2,100 lin. ft. curbing, 110 lin. ft. circle curb and 245 ft. abutting stone. Bids will also be received for the improvement of 14th St., consisting of 3,200 sq. yds. paving, 2,500 lin. ft. curbing, sewers, etc. H. W. Sinclair, Clk. of Bd.; Harry Leith, Cy. Engr.

CLEVELAND, O.—County Commissioners have decided to pave Schaff Road this spring, at a cost of $200,000. They have also decided to advertise immediately for bids for improvement of Bedford Road, six miles long, at a cost of $15,000 per mile. Julius S. Dorn is County Clk.

PAINESVILLE, O.—Frank Blackmore, Cy. Clk., announces that the resolution to inprove St. Clait St., by grading, curbing, etc., has been approved by the Mayor.

BARBERTON, O.—Bids are asked until April 15 for constructing about 12,848 sq. yds. of block pavement, and about 1,856 ft. of 12 to 30-in. pipe, concrete and brick sewer. W. F. Robison, Village Clerk. (Advertised, Engineering News.)

MANSFIELD, O.—U. S. Koontz, Clk. of Council, announces that bids will soon be invited for improving several streets by grading and laying cement walks, etc. Loren Keith is Cy. Engr.

LIMA, O.—Following bids were received March 29, by Board Public Service, R. H. Gamble, Ch. Engr., for constructing standard sheet asphalt pavement on W. Elm St.: A. G. Pugh, Columbus, O., $35,500; Barber Asphalt Co., $29,970; Cleveland Trinidad Paving Co., Cleveland, O., $28,500.

RENSSELAER, IND.—Bids are asked by County Commissioners until April 17, for constructing gravel roads, in all about 14 miles. Jas. N. Leatherman, County Audr.

SOUTH BEND, IND.—The following are reported to be the lowest bidders for paving in this city, bids for which opened March 15: C. H. Deefrees, South Bend, Hill St., $23,901; Robertson St., $1,455, Monroe St., $12,386; James Nelson, South Bend, Studebaker St., $4,299; H. N. Barnes, South Bend, Laurel St., $1,558; Hoban & Roach, South Bend, Scott St., $4,108. A. J. Hammond is Cy. Engr.

BLOOMFIELD, IND.—Bids were opened March 16 by County Commissioners for building gravel and macadamized roads. Successful bidders were: T. E. SLINKARD, Lyons, Ind.; JAMES HAWN, Jasonville, Ind., and SAM. F. HAYS, Worthington, Ind. W. H. Deckard, County Audr.

CONNERSVILLE, IND.—Karl L. Hanson, Cy. Engr., writes us that the bids for grading and graveling of 11th and Franklin Sts., received March 20, have been returned to contractors unopened, as it was decided to postpone work until later in the summer.

INDIANAPOLIS, IND.—Bids are asked by County Commissioners until April 25, for grading approaches to bridge over Buck Creek in Franklin Township. Cyrus J. Clark, County Audr.

BLOOMFIELD, IND.—Bids are asked County Commissioners until May 2, for construction of gravel and macadamized roads in Stafford, Grant and Cass Townships.

GRAND RAPIDS, MICH.—Contract for repairing Cherry St. was let to KLOOTE & VANDERBEEN, for $12,100. L. W. Anderson is Cy Engr.

ESCANABA, MICH.—Bids are asked until April 18 for furnishing material and labor for paving on Ludington St. H. J. Robertson, Cy. Clk. (Advertised, Engineering News.)

PARIS, ILL.—Bids are asked until April 14 for laying 11,148 sq. yds. of brick paving, the estimated cost of which is $23,896. W. T. Blackburn, Cy. Engr. (Advertised, Engineering News.)

MOLINE, ILL.—City Council, March 20, awarded contract for paving Market Square to TRI-CITY CONSTRUCTION CO., Davenport St., Moline, for $2,240. The same company was awarded paving on 17th St. for $5,980.

ST. LOUIS, MO.—The PARKER-WASHINGTON CO., Duncan St., St. Louis, was awarded contract for paving a number of streets here with asphalt, at a total cost of $149,549.

ST. LOUIS, MO.—Bids for paving with brick were opened March 22 by Board Public Improvements, and the following contracts awarded: 13th St., FRUIN-BAMBRICK CONSTRUCTION CO., 721 Olive St., $10,978; alleys, blocks 1869 and 1448, WM. R. BUSH CONSTRUCTION CO., 211 North Seventh St., $3,508; alleys, blocks 4490, 3779 and 3782, B. MICHAEL HANICK, $18,083; alleys, blocks 1510 and 1411, RUECKING CONSTRUCTION CO., St. Louis, $3,887.

RED OAK, IA.—Bids will be received by F. J. Brodby, Pres. Bd. of Dir., until April 18, for constructing about 2,120 lin. ft. and 11,500 sq. ft. of cement sidewalks at several school buildings. S. A. Henry, Clk.

SIOUX CITY, IA.—It is stated that the Sioux City Traction Co. will expend $40,000 in improvements of streets of the city this summer. M. W. Lake is Ch. Engr.

MANKATO, MINN.—Bids are asked by Board Public Works until April 18 for paving with brick on several streets. J. R. Thompson is Cy. Engr.

HOUSTON, TEX.—Contracts for paving several streets were awarded by Board Public Works to COLLINS BROS. and W. S. HIPP, both of Houston, for $4,777 and $7,386, respectively. F. L. Dormant is Cy. Engr.

SEATTLE, WASH.—Following bids were received March 18 by C. B. Bagley, Secy. Bd. Pub. Wks., for grading Main and other streets: Sprager Concrete Co., Lumber Exchange Bldg. Seattle, $92,897; P. J. McHugh, Seattle, $82,828 (awarded contract); Hans Pederson, Seattle, $88,921.

Bids will be opened April 8 by Mr. Bagley, for grading and concrete sidewalking of Franklin Ave. and other streets. Est. cost $35,000. R. H. Thomson, Cy. Engr.

PORT TOWNSEND, WASH.—We are informed that the contract for grading and construction of road (bids opened March 21) was awarded to H. J. McINNIS, of Port Townsend, for $3,949. Geo. H. Penrose, Q. M., U. S. A.

McADAM & CANNON were the lowest bidders, at $9,174, for laying concrete walks on Tenth Ave., North.

SAN FRANCISCO, CAL.—The Board of Works awarded Mar. 23 the contract for parking of Dolore St. and repair bituminized streets in Mission to CITY STREET IMPROVEMENT CO., 10 Mills Bldg., for $4,390 for each contract. The same company receive contract for keeping in repair certain streets until June 30, for $5,997.

SACRAMENTO, CAL.—Clark Alberti, Secy. Dept. of Highways, informs us that the Legislature enacted laws providing for work under the direction of State Department of Highways as follows: Bridges, culverts and grading on Sonora and Mono State Road, 78 miles in length, 20,000; permanent improvements on county road between Atturas and Cedarville, 25 miles, $7,000; protecting banks of Eel River, Humboldt County, by jetty work, $32,000; highway, Fresno County, 50 miles, $50,000; bridge work, Lake Tahoe Wagon Road, $6,000; metallic guide posts for desert sections of various counties, $5,000; maintenance of roads, $23,110.

## MANUFACTURING PLANTS.

*The names of parties awarded contracts are printed in capital letters.*

CARLISLE, PA.—M. L. Dunkleberger is organizing a company to manufacture shoes and has purchased a site for a 3-story building. Capital, $75,000.

The Carlisle Body & Gear Works Co. contemplates the erection of a building in which to manufacture buggy and automobile bodies, etc. Address D. S. Wagner.

PHILADELPHIA, PA.—Ballinger & Perrot, Archs., 1200 Chestnut St., have invited bids for four-story warehouse and factory at American and Master Sts.

Contract for factory at Wayne and Roberts Aves. has been awarded to WM. STEELE & SONS, 16th and Arch Sts. Brick, 5 stories, 100 × 190 ft.

Contract has been awarded to A. RAYMOND RAFF, 1635 Thompson St., for additions to factory at Sheridan and Cherry Sts., for A. L. & W. A. Haines. Cost, $35,000.

ROBT. BEATTY & BRO., 2314 East Dauphin St., have been awarded contract for an addition to factory of American Pulley Co.

ASHLAND, PA.—THOS. KNAPPENBERGER, of South Bethlehem, Pa., has been awarded contract for fertilizer factory at this place. Frame, 3 stories, 40 × 150 ft.

READING, PA.—Contract for an addition to foundry for Reading Stove Works has been awarded to GEO. W. BEARD & CO., Colonial Trust Bldg., Reading. Brick, 1 story, 50 × 220 ft.

READING, PA.—The Reading Iron Co. has invited bids for foundry for Reading Iron Co. Brick and steel, 3 stories, 300 × 120 ft. and 110 × 100 ft.

BALTIMORE, MD.—The Bartgis Bros. Co., paper box manufacturers, 1030 Linden Ave., has awarded contract to ASHLAND CONSTRUCTION CO., 1012 Ashland Ave., for construction of buildings to be erected at 6 and 8 South Greene St. Brick, 4 stories, 44 × 82 ft. Morris & Clifford, Archs., 657 Calvert Bldg.

BALTIMORE, MD.—The Hughes Furniture Mfg. Co., 223 West Fayette St., has awarded contract to J. HASWELL & SON, 550 Oxford St., for construction of factory building to be located on Haubert St. Brick, 3 stories, 50 × 95 ft. Cost, about $5,000.

BOYDTON, VA.—B. E. Cogbill is president of a company which will erect a lumber mill here.

CHASE CITY, VA.—The Hub, Spoke & [illegible] Co. is in the market for a full line of hub ma[illegible]y. E. S. Emory is Pres.

McKENNEY, VA.—The McKenney Mfg. C[illegible] erect a dry kiln within the next sixty days.

PRICES FORK, VA.—Price & Shealor will [illegible] their flour and grist mill, burned recently.

PORTSMOUTH, VA.—The factory of the M[illegible]nts and Farmers Peanut Co. was destroyed by fire. L[illegible] $50,000.

MORGANTOWN, W. VA.—The steel pl[illegible] built by Rolling Mill Co. of America, and recently t[illegible]ferred to Morgantown Tin Plate Co., was sold last w[illegible] to John G. Frazer, of this city, for $154,000.

CHARLESTON, W. VA.—T. J. Carmock wi[illegible]tablish a planing mill here.

ORB HILL, N. C.—A box and nail keg fa[illegible] will be established here by John R. and Leon S. L[illegible] Capital, $7,500.

LEXINGTON, N. C.—D. F. Conrad and o[illegible] are organizing a company to erect an iron bedstead factory.

NEWTON, N. C.—The Catawba Cotton Mil[illegible] will erect an addition and install new machinery.

CORDELE, GA.—R. J. Lamb will establish a factory here to manufacture buggies and wagons.

WAYCROSSS, GA.—The Atlantic Coast Line Ry. Co. will erect new railroad shops here at a cost of $100,000. The shops are to be equipped with modern machinery and electrically driven. D. F. Kirkland is Dist. Supt., Waycross.

SAVANNAH, GA.—Judge Henry McAlpin has leased property near this city to Boston capitalists, who will build and operate a large saw mill.

FORT GAINES, GA.—A canning factory will be erected here by Geo. C. Brown.

ANNISTON, ALA.—The Southern Electric & Supply Co., W. L. Goodhart, Secy., will install a complete line of machinery in its proposed new plant, for the manufacture of electrical supplies, motors, etc. A plating plant and brass foundry will also be installed. The company will not be ready to erect machinery for thirty days, at least.

OHATCHEE, ALA.—Griffin Bros. will erect a large saw and planing mill here.

ASHRIDGE, ALA.—Cotton gin of E. P. Lakeman burned recently will be rebuilt.

JACKSON, MISS.—The Mississippi Pearl Button Co., capital $10,000, completed its organization March 31, and is now in the market for machinery for its factory. Address R. L. Evans.

SHREVEPORT, LA.—The Virginia-Carolina Chemical Co., which has its headquarters at Richmond, Va., will erect a fertilizer factory here.

NEW ORLEANS, LA.—The Cable Piano Co., of Chicago and St. Charles, Ill., will probably establish a piano factory here. J. A. Dugan is Local Mgr.

HUMBOLDT, TENN.—John Rust, of Milan, is organizing a company here to erect a steam laundry.

LOUDON, TENN.—Horne & Goans will establish a flouring mill here.

LOUDON, TENN.—Horne & Goans will erect a 100 barrel flouring mill at a cost of $15,000, and are in the market for machinery for same; order will be placed in the near future.

KNOXVILLE, TENN.—J. F. Tillery desires to correspond with manufacturers of machinery for distilling coal tar.

JACKSON, TENN.—The Cloverine Fertilizer Co., of Mount Pleasant, composed of H. D. Ruhm, E. L. Gregory and D. W. Shafner, will erect a plant here.

BRISTOL, TENN.—The Norfolk & Western Ry. Co. will erect new shops here and make other improvements at a cost of about $250,000. John A. Pilcher is Mech. Engr., Roanoke, Va.

OBION, TENN.—A canning factory will probably be erected here. Address the Mayor.

COOKEVILLE, TENN.—The Cloverine Fertilizer Co., of Mt. Pleasant, will establish a branch factory here.

NASHVILLE, TENN.—William Rich will erect a $10,000 factory building in South Nashville, to be occupied by Rothschild Bros. & Lusky, couch manufacturers.

LIVERMORE, KY.—The erection of a chair factory is contemplated. Rev. E. B. Morton can inform.

LOUISVILLE, KY.—Hirsch Bros. & Co. will erect a four-story brick addition to their factory at a cost of $25,000. McDonald & Sheblessy, 349 West Main St., are Archs.

MORGANFIELD, KY.—L. A. Harris will organize a $50,000 company here to establish a canning factory. Secretary Commercial Club can give information.

COLUMBUS, O.—The directors of the Columbus Structural Steel Co. has decided to locate new plant at west end of Buttles Ave. Work on the erection of buildings will begin at once.

PERU, IND.—A large canning factory will be built here by R. A. Edwards and others. Bids will be in order soon.

GRAND RAPIDS, MICH.—Work on new office and mannufacturing buildings of Aldine Grate & Mantel Co., of Grand Rapids, will be begun this month.

CHICAGO, ILL.—H. L. Ottenheimer, Arch., 109 Randolph St., is preparing plans for factory for Shank Co. Cost, $10,000.

Bradner Smith & Co. contemplate the erection of two factory buildings, one for themselves and one for Pioneer Paper Co. Huehl & Schmid, Archs., 163 Randolph St., will prepare plans.

CHICAGO, ILL.—Plans for foundry and warehouse for Union Wire Mattress Co. are being prepared by M. J. Moorehouse, Arch., 702 Fisher Bldg.

ST. CLOUD, MINN.—It is reported that the Great Northern R. R. Co. will soon commence work upon an eddition to car works here. A. L. Graburn is Supt. of Shops, St. Cloud.

OMAHA, NEB.—Haarman Bros., pickle manufacturers, are having plans prepared for new factory building, to cost about $40,000.

ST. LOUIS, MO.—The N. O. Nelson Mfg. Co. has leased property and will erect an eight-story building for its plant.

KANSAS CITY, MO.—The Kemper-Paxton Mercantile Co., of Kansas City, will build a factory, to cost $80,000, for the manufacture of farm implements.

DALLAS, TEX.—The W. A. Brown Mfg. Co. will erect a factory building for manufacture of vehicles, at a cost of $30,000. W. O. Brown is Pres.

DENISON, TEX.—A canning factory will be established here. Address Secy. of Commercial Club for information.

ORANGE, TEX.—The plant of Orange Lumber Co. which was burned recently at a loss of $75,000, will be rebuilt at once.

MATAGORDA, TEX.—F. J. Hardy, of El Campo, Tex., is organizing a company to establish a fish and oyster canning factory here.

DALLAS, TEX.—J. Crossman & Sons will erect a three-story brick building at a cost of $20,000, to be used for manufacture of soda fountain supplies and apparatus.

ST. LOUIS, MO.—O. J. Boehmer, Arch., Holland Bldg., has prepared plans for 2-story machine shop, 18 x 40 ft., for Krey Packing Co., 21st and Brehmen Sts. Cost, $25,000.

HANNIBAL, MO.—Ernest Schmidt has prepared plans for 2-story brick laundry building for Geo. W. Courtney.

GROVELAND, T.—W. A. Romans writes that he desires to correspond with manufacturers of machinery for small ice factories of two or three tons daily capacity.

BLYTHEVILLE, ARK.—The Chicago Mill & Lumber Co. will erect a band saw mill.

OKLAHOMA CITY, OKLA.—A plant will be established here by Continental Creamery Co., of Topeka, Kan.

OKLAHOMA CITY, OKLA.—The Moline (Ill.) Plow Co. will erect a branch plant in this place.

GUTHRIE, OKLA.—The Fleakill Co. has been chartered to do a chemical manufacturing business. Capital $100,000. Incorporators: A. H. Manning and W. E. Von Johannen, of San Francisco, Cal., and G. V. Pattison, of Guthrie.

PORTLAND, ORE.—H. C. Campbell, Jos. Supple and others will build a plant at East Water and Belmont Sts., to manufacture rotary engines.

SACRAMENTO, CAL.—It is stated that the Old City Brewery, 12th and H Sts., is to be torn down and a new six-story brewery erected in its place.

HEALDSBURG, CAL.—The Healdsburg Promotion Club plans the erection of a $10,000 tannery here within the next few months.

SAN FRANCISCO, CAL.—California Powder Works, R. S. Penniman, Gen. Mgr., Wells Fargo Bldg., San Francisco, is preparing to install a sulphuric acid plant at Hercules, Cal., to cost about $600,000.

SAN FRANCISCO, CAL.—The Pacific Jupiter Steel Co., 346 Crossley Bldg., is planning to expend $100,000 in increasing the facilities of its foundry in South San Francisco, San Mateo County. Constant Meese is Supt.

TORONTO, ONT.—The Canadian Rubber Co. intends to reconstruct their entire plant and erect a number of new buildings at Papineau Square.

Lymburner & Matthews have acquired the property at 3 to 15 Commissioners St. and are about to erect a 5-story factory, to cost $30,000.

TORONTO, ONT.—The Northern Construction Co. is prepared to let grading contracts on James Bay Railway.

PETERBORO, ONT.—The Peterboro Lock Mfg. Co. is about to invite tenders for erection of their new building.

WINDSOR, ONT.—The Peninsular Tool & Specialty Co. will erecth a factory on Caron Ave.

WALKERVILLE, ONT.—The Globe Furniture Co. has decided to build a new factory to cost $40,000, for which plans have been prepared.

HAMILTON, ONT.—The Canadian Shovel & Tool Co. is being organized by Philip Dyer, of Easton, Pa., and Chas. A. H. Holton, of this city. It is proposed to immediately build a factory to comprise four buildings.

ST. JOHN, N. B.—The Christie Woodworking Co. intend increasing their factory.

MOUNT TREMBLART, QUE.—The Galt Petroleum & Chemical Co. announced that they will erect here a $100,000 wood alcohol plant.

GAINSBORO, N. W. T.—A flour mill will be erected here by H. D. Cameron and James Mawdsley; contract for milling machinery not let.

## MISCELLANEOUS CONTRACTS.

*The names of parties awarded contracts are printed in capital letters.*

DREDGING.—Ellis Island, N. Y.—Bids are asked until April 18 for doing certain dredging near Ellis Island. Robert Watchorn, Comr. Immigration.

TRAP ROCK.—Holyoke, Mass.—Board Public Works is stated to be calling for bids until April 27 for 5,000 tons traprock. James L. Tighe is Cy. Engr.

BREAKWATER.—Freeport, N. S.—Department Public Works, Ottawa, Ont., is asking bids until April 14 for construction of breakwater at this place.

BREAKWATER EXTENSION.—Campbell's Cove, N. B.—Contract for rebuilding breakwater here has been let to JOSEPH McINTYRE, Fairfield, N. B.

DITCH WORK.—Upper Sandusky, O.—Contract for constructing Spring Run ditch is stated to have been let March 22, to SAMUEL DULL, Arcanum, O.

DITCH.—Lafayette, Ind.—Bids ae asked at office county surveyor, until April 15, for construction of Frank Kirkpatrick Ditch. Geo. H. Stevenson, Drainage Comr.

JETTY.—Newport, R. I.—Bids are asked until May 3 for jetty construction at Nantucket Harbor, Mass. Lt.-Col. J. H. Willard, U. S. Engrs. (Advertised, Engineering News.)

DREDGING.—Newport, R. I.—Bids are asked until May 3 for dredging at Hyannis Harbor and at Nantucket, Mass. Lt.-Col. J. H. Willard, U. S. Engrs. (Advertised, Engineering News.)

RIPRAP STONE.—New York, N. Y.—Bids are asked by Maurice Featherson, Comr. Docks, until April 13, for furnishing, delivering and putting in place about 20,000 cu. yds. riprap stone.

DREDGING.—New York, N. Y.—Bids are asked until April 17 for dredging in Coney Island Channel, New York Harbor. Lt.-Col. W. L. Marshall, U. S. Engrs. (Advertised, Engineering News.)

BOARD WALK.—Holly Beach, N. J.—Press reports state that contract for constructing board walk on beach front has been let to GFO. A. BOURGEOIS & SON, Ocean City, N. J., for $25,000.

LEVEE WORK.—Greenville, Miss.—Contract for repairing Australia Levee in Bolivar County and Valewood Levee in Issaquena (bids opened March 22) has been let to MORGAN & McCARTEN.

CEMENT, TIMBER, ETC.—Ottawa, Ont.—Bids are asked by Stephen O'Brien, Secy., Ottawa Improvement Comn., until April 11 for supply of cement, timber and hardware during current year.

COAL STORAGE PLANT.—Richmond, Va.—White Oak Coal Co., S. Dixon, Pres., is stated to have awarded contract for erection of coal storage plant between 11th and 12th Sts., to SANFORD & BROOKS, Baltimore, Md., for about $30,000.

## READERS' WANTS

**If any one is in the market for any engineering or contracting supplies, the first thing to do is to refer to our advertising pages, but if the buyer cannot find what he wants we particularly ask that he notify us at once and we will inform the proper parties without cost to the inquirer. A copy of ENGINEERING NEWS BUYERS' GUIDE will be mailed to any one upon application. This paper will always appreciate any news notes regarding public, or important private work, and will be pleased to receive detailed items. Requests to hold names will be complied with in every case. Do not fail to write our advertisers or us.**

BRICK MACHINERY.—Saulsberry, Ky.—The Carte County Fire Brick Co. is in the market.

FIRE SPRINKLER SYSTEM.—Warsaw, Ky.—The McDowell Furniture Mfg. Co. is understood to be in the market.

PORTLAND CEMENT.—Mebane, N. C.—The White Furniture Co. is in the market for cement for cement building blocks.

BRIQUETTING MACHINERY.—Rockdale, Tex.—W. A. Moody is in the market for a machine for briquetting lignite coal.

CONCRETE BLOCK MACHINERY.—Mobile, Ala.—The Mobile Concrete & Bldg. Block Co., 56 North Royal St., is in the market.

ROTARY ENGINE.—Brownsville, Pa.—Peter Bartolette, Box 326, writes us that he wants information regarding 300-HP. rotary engine.

STONE JACKS.—Buffalo, N. Y.—The National Engineering Co., Prudential Bldg., writes us that it wants the addresses of manufacturers of stone jacks.

STREET CAR FENDERS.—Austria.—W. A. Rublee, U. S. Consul-General at Vienna, reports that the Vienna St. Car Co. is in the market for fenders.

CORE DRILL WORK.—Canandaigua, N. Y.—W. H. Welch, C. E., wants to correspond with a party who has a core drill, as stated in our Miscellaneous Wants.

ROAD-MAKING MACHINERY.—Toledo, O.—Wm. H. Watte, 1241 Superior St., writes us that he wants catalogues of road-making machinery and rock crushers.

ASPHALT PAVING BLOCKS.—Baltimore, Md.—B. Wallis & Co., 210 E. Lexington St., write us that they wish the names of manufacturers of asphalt paving blocks.

ICE-MAKING MACHINES.—Siam.—Jos. P. Selden, U. S. Vice-Consul-General, Bangkok, reports that a large engineering concern is in the market for ice-making plants.

ONE AND TWO-HP. GAS ENGINES.—Alexandria Bay, N. Y.—J. S. Keeler, Keeler Block, writes us that he wants prices on small gas engines for motor boats, with reversible propeller wheels.

ANEROID.—Detroit, Mich.—"K. A. 11." care of Engineering News, New York, is in the market for an aneroid, reading to one foot, and a direction current meter, as stated in our Miscellaneous Wants.

STEEL AND IRON BOILER TUBES.—New York, N. Y.—J. Edward Ogden Co., 147 Cedar St., writes us that it wants the addresses of manufacturers, located near New York, of steel and iron boiler tubes.

BUILDING SUPPLIES.—The First Baptist Church, McComb City, Miss.; the Monogah Investment Co., Monogah, W. Va.; H. R. Alsop, of Houston, Tex.; G. W. Fair, 900 West 15th St., Little Rock, Ark., and the Marlboro Improvement Co., of Bennettsville, S. C., are reported in the market for various lines of building supplies.

ENGINES, DERRICKS, PUMPS, PIPE, BUCKETS, DUMP CARS, CONCRETE MIXERS, ETC.—Walhalla, S. C.—The Oconee Water, Light & Power Co. is in the market, as it intends to build a plant.

POWER AND ELECTRIC MACHINERY.—Walkerville, Ont., Can.—W. F. Brown, Gen. Mgr. W. & I. Electric Ry. Co., writes us the company is in the market for the supplies in connection with the proposed line.

STONE BAND SAWS AND NECESSARY MACHINERY.—Allentown, Pa.—H. F. Bascom, Cy. Engr., writes us that he wants the addresses of manufacturers of stone band saws, either single or in gangs, with the necessary machinery for operating same.

PORCELAIN MILLS, ETC.—Washington, D. C.—The General Supply Co., A. H. Dyson, Engr., Colorado Bldg., writes us that it wants to know the names of parties who are engaged in supplying porcelain mills with ground and crushed silicate for use in porcelain work.

QUARRY EQUIPMENT, ROCK CRUSHERS, SAND GRINDING MACHINERY AND BRICK-MAKING MACHINERY.—Pittsburg, Pa.—C. B. Dunmire, 903 Park Bldg., writes us that he wishes to receive catalogues of manufacturers of the above-mentioned supplies.

CONCRETE BLOCK MACHINES.—New York, N. Y.—A. J. Slade, C. E., 4 East 42d St., writes us that he is looking up the subject of concrete block machines to see if it is possible to erect some fireproof tenement houses in the outlying districts of New York, using concrete blocks for walls and partitions and reinforced concrete for floors.

CONCRETE PILING.—Daytona, Fla.—B. L. Armstrong, Ridgewood Hotel, writes us that he wishes to get into correspondence with manufacturers of concrete piling, or with firms making tile pipe, which is attached in some way to the pile at the water line, so as to protect it for three or four feet from a few inches below low water to a few inches above high water.

ELECTRICAL SUPPLIES.—The Wilmington-Southport Telephone & Telegraph Co., Wilmington, S. C.; Supt. Electric Light Co., Greenwood, S. C.; Box 367, Columbus, Ga.; Cash & Allen, Eagle Rock, Va.; the Luverne Electric Light & Water Co., Luverne, Ala.; J. W. Thompson Light Co., Edgefield, S. C.; W. A. Liddell, Mayor of New Albany, Miss.; R. L. Brown, of Oxford, N. C., are reported in the market for all kinds of electric supplies, fixtures, machinery, etc.

WOODEN WATER TANK, 56-LB. RAILS, SPIKES, BOLTS, SWITCHES, FROGS, RAIL JOINTS, TIE PLATES, CATTLE GUARDS, 40,000 OAK TIES, CROW, CLAW AND TAMPING BARS, PICKS, RAIL-BENDERS, TRACK GAGES, TRACK JACKS, TRACK LEVERS, TRACK DRILLS, RAIL SAWS, HAND AND PUSH CARS, TENTS, WHEELBARROWS, ETC.—Lufkin, Tex.—P. A. McCarthy, of Lufkin, writes us that the above-mentioned supplies will probably soon be wanted.

DAM WORK.—Wheeling, W. Va.—Bids are asked until May 3 for building Dam No. 18, Ohio River, about four miles above Parkersburg, W. Va. Major Geo. A. Zinn, U. S. Engrs. (Advertised, Engineering News.)

STEAM SHOVELS.—Washington, D. C.—Bids are asked by Isthmian Canal Commission, Major H. J. Gallagher, U. S. A., Purchasing Agent, until May 3, for furnishing steam shovels. (Advertised, Engineering News.)

PIER WORK.—New York, N. Y.—Commissioner of Docks has awarded contract for building lateral extension to Pier No. 32 East River (bids opened March 27) to R. P. & J. H. STAATS, INC., 20 Broadway, New York, at $29,900.

MACHINERY, ETC.—Washington, D. C.—Bids are asked by Isthmian Canal Commission, Major H. J. Gallagher, U. S. A., Purchasing Agent, until May 1, for furnishing machinery, drills, lathes, tools, saws, etc. (Advertised, Engineering News.)

GRAIN ELEVATOR.—South Bethlehem, Pa.—A. W. Leh, Arch., South Bethlehem, is stated to have invited bids for four-story brick fireproof grain elevator for Benner & Person. Power equipment, elevating machinery, etc., will be required.

METAL DRAIN.—Buffalo, N. Y.—Aldermanic Finance Committee has voted to report in favor of awarding contract for construction of metal drain in Clark and Skinner Canal to Buffalo Dredging Co., for $49,000. Bids for this work were opened last summer.

FIRE ALARM SYSTEM.—Bakersfield, Cal.—J. L. Evans, Cy. Engr., writes us city has let contract for fire alarm system to SIGNAL PHONE CO., Milwaukee, Wis., for $4,241. System includes 25 combination police patrol and alarm boxes and ten miles of wiring.

PIER WORK.—New York, N. Y.—Bids are asked by Maurice Featherson, Comr. Docks, Pier A, Battery Pl., until April 12, for furnishing all labor and materials required for preparing for and extending and repairing pier at the foot of W. 158th St., North River.

PIER; WALL.—Edgewater, N. J.—Bids are asked until April 18 for constructing public pier, to cost about $18,000, for Borough of Edgewater. Bids are also to be opened April 18 for retaining wall along Gorge Road, to cost about $5,000. *William Cass, Boro. Engr.

BOARD WALK.—Atlantic City, N. J.—Bids are asked by City Clerk, until April 17, for widening board walk. Work includes 2,988 lin. ft. board walk addition erected complete and seven extra bents of new metal substructure. J. W. Hackney, Cy. Engr. (Advertised, Engineering News.)

BREAKWATER.—Devil Island, N. S.—Bids are asked by Department Public Works, Ottawa, Ont., until April 15, for construction of breakwater at this place. Plans at office of C. E. W. Dodgwell, Halifax, N. S.; E. G. Milledge, Antigonish, N. S., and on application to the Postmaster.

DOCK.—Burlington, Vt.—Bids are asked by Public Dock Committee, Mayor J. E. Burke, Member, until April 20, for construction of public dock on shore of Lake Champlain. Dock will consist of timber cribs or of concrete wall, and about 11,500 cu. yds, rubble filling. (Advertised, Engineering News.)

BOILERS.—Columbus, O.—Bids are asked by Fred. S. Marquis, Secy. Board of Managers Ohio State Reformatory at Mansfield, O., until April 18 for furnishing and installing four 265-HP. water tube boilers of the B and W type, and for complete automatic stokers of same type, complete specifications together with the proposal blanks may be had on application to Henry Heer, M. E., Mansfield, O.

DOCK WORK.—New Orleans, La.—Illinois Central Ry. Co., has awarded contracts for rebuilding Stuyvesant docks, with exception of Elevator D to JAMES STEWART & CO., Lincoln Trust Bldg., St. Louis, Mo., and GEO. B. SWIFT CO., 188 Madison St., Chicago, Ill. Contracts amount to about $1,500,000.

MOTORS, WIRE ROPE, ETC.—Washington, D. C.—Bids are asked by Bureau Supplies and Accounts, Navy Department, until April 18, for furnishing quantity of naval supplies, among which are motors, wire, conduit, wire rope, bronze plates, tool steel, lumber, etc. H. T. B. Harris, Pay.-M. Gen., U. S. N.

TRACK TOOLS, METAL, ETC.—Washington, D. C.—Bids are asked by Isthmian Canal Commission, Major H. J. Gallagher, U. S. A., Purchasing Agent, until May 2, for furnishing track tools, bolts, tie plates, spikes, boiler iron, galvanized iron roofing, pig lead, contractors' plows, horse rollers, etc. (Advertised, Engineering News.)

BREAKWATER WORK.—Cleveland, O.—Bids are asked by Lt.-Col. Dan C. Kingman, U. S. Engrs., until May 6, for the following work: Filling with large riprap along lake face of west breakwater at Cleveland Harbor; sheathing harbor face of west breakwater; repairing shore end of west breakwater. (Official advertisements for the above work are in the Engineering News.)

ROCK EXCAVATION.—Boston, Mass.—Following bids were received March 30 by Col. W. S. Stanton, U. S. Engrs., for 16,555 cu. yds. rock excavation in Boston Harbor: Daly Hannan Dredging Co., Ogdensburgh, N. Y., $304,612; Dunbar & Sullivan Dredging Co., Buffalo, N. Y., $345,503; P. Sanford Ross, Inc., Jersey City, N. J., $297,900; G. H. Breymann & Bros., Toledo, O., $264,880.

## CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

ASPHALT.—Winnipeg, Man.—Following bids per gross ton (including packages), f. o. b. cars, Winnipeg, were received Feb. 21, by C. J. Brown, Cy. Clk., for from 1,000 to 1,500 tons asphalt for street paving: Barber Asphalt Paving Co., Minneapolis, Minn., refined Bermudy Lake (New York & Bermudy Co.), $26.95; American Asphaltum & Rubber Co., Women's Temple, Chicago, Ill., "Pioneer" paving asphalt cement, $31.00; Trinidad Asphalt Mfg Co., 320 S. 21st St., St. Louis, Mo., Epure, $33.60; Globe Asphalt Co., 405 Bakewell Bldg., Pittsburg, Pa., Obispo, $29.50; UNITED STATES & VENEZUELA CO., 1 Broadway, New York (awarded contract), Venezuela Lake asphalt, $26.15; Warren Asphalt Paving Co., Cambridge, Mass., Warren Acme asphalt, $28.50; Wilson Patterson, 711 Union Bank Bldg., Winnipeg, Seepe, $25; Graves & Riley, 415 McIntyre Block, Winnipeg, Crown, $27.45; California Asphaltum Sales Agency, Mills Building, San Francisco, Cal., Maltha Brand, $20.90; Bernard Biemenfeld, San Francisco, Cal., D. Grade $23.25; H. F. Anderson & Co., Winnipeg, Bermudy, $26.20.

*CEMENT.—Wheeling, W. Va.—Following bids were received March 14 by Major Geo. A. Zinn, U. S. Engrs., for furnishing and delivering 7,500 bbls. American Portland Cement for Dam No. 13, Ohio River: The Cleveland Builders Supply Co., Cleveland, O., Pennsylvania, $1.40; Atlas Portland Cement Co., New York City, Atlas, $1.32; Commercial Wood & Cement Co., New York, N. Y., Say-

lors, $1.48; Alpha Portland Cement Co., Easton, Pa., Alpha, $1.34; The Kelley Island Lime & Transport Co., Cleveland, O., Lehigh, $1.48; Atlantic Cement Co., New York City, Atlantic, $1.40; D. J. Kennedy Co., Pittsburg, Pa., Lehigh, $1.35.

*DAM.—Los Angeles, Cal.—Following bids were received March 15 by U. S. Reclamation Service, Los Angeles, J. B. Lippincott, Supervising Engr., for construction of Laguna Dam and sluiceways; (1) excavation, Class 1, 305,000 cu. yds.; (2) excavation, Class 2, 282,000 cu. yds.; (3) placing rock in dam, 305,000 cu. yds.; (4) paving, 80,000 sq. yds., (5) concrete, 27,150 cu. yds.; (6) furnishing and driving sheet piling, 53,000 lin. ft.; (7) total bid:

Bids received at Los Angeles, Cal., March 15, 1905, by U. S. Reclamation Service, Los Angeles, J. B. Lippincott, Supervising Engineer, for Construction of Laguna Dam and Sluiceways.

| Names and Addresses. | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
|---|---|---|---|---|---|---|---|
| Chicago Engineering & Const. Co., 1301 Great Northern Bldg, Chicago, Ill. | $2.64 | .35 | .20 | $2.71 | $5.42 | .52 | $1,356,413 |
| Chicago Engineering & Const. Co., conditional bid | 2.44 | .35 | .20 | 2.71 | 5.42 | .52 | 1,295,413 |
| P. McDonald, Duluth, Minn. | 1.35 | .35 | .40 | 1.25 | 4.75 | .40 | 882,612 |
| Andrew Holloway, Pasadena, Cal. | 1.35 | .70 | .80 | 2.40 | 8.00 | .60 | 1,294,150 |
| Kettle Contracting Co., 211 Barber Bldg, Joliet, Ill. | 2.25 | 1.50 | 1.35 | 3.00 | 4.00 | 1 20 | 1,933,200 |
| City Street Imp. Co., 512 Mills Bldg, San Francisco, Cal. | 1.30 | .40 | .43 | 1.10 | 5.00 | .35 | 882,750 |
| J. G. White & Co., 43 Exchange Place, New York City | 1.60 | .30 | .80 | 2 27 | 5.50 | .41 | 1,169,255 |
| Orman & Crook, Pueblo, Colo. | .98 | .55 | .40 | 1.35 | 5.00 | .30 | 835,650 |
| Faris Kesl Const. Co., Boise, Idaho | 1.25 | .45 | .65 | 1.00 | 4.00 | .55 | 924,150 |
| Bentley, Tuttle & Pelton Co., 615 Haight St., San Francisco | 1.70 | .66 | .27 | .62 | 4.00 | .50 | 971,670 |
| Mosier De Graff Const. Co., 1266 Seneca St., Buffalo, N.Y. | .95 | .50 | .50 | 2.50 | 4.35 | .50 | 927,852 |
| Black & Laird, Birmingham, Ala. | 2.05 | .33 | .70 | 1.75 | 4.75 | .54 | 1,229,392 |
| N. S. Sherman, Oklahoma Territory | 1.60 | .75 | 1.45 | 3.30 | 5.05 | .50 | 1,569,357 |
| Griffith & McDermott, 135 Adams Street, Chicago, Ill. | 1.39 | .44 | .52 | 1.11 | 4.46 | .35 | 935,069 |

*STREET SIGNS.—Columbus, O.—Following bids were received March 15, by Board Public Service, Chas. H. Frank, Secy., for street signs in place; (1) 3,400 enamel signs on buildings, (2) 1,300 wood posts with two enamel signs: U. D. Beard, Columbus, O., (1) $0.58, (2) $2.14; D. J. McDaniel, Columbus, O., (1) $0.65, (2) $2.85; Wm. S. Whitman, Columbus, O., (1) $0.58, (2) $2.49; D. Elmer Roberts, Racine, Wis., (1) $0.60, (2) $4.00. Last bidder also offered following proposal: Malleable iron signs on buildings, $0.60; malleable iron signs on iron posts, $4; malleable iron signs on public service posts, $1.75.

*WATER PIPE.—Washington, D. C.—Following bids per ton were received March 18 by District Commissioners, W. A. McFarland, Supt. W. Dept., for furnishing 600 tons 8-in. cast iron water pipe: Lynchburg Foundry Co., Lynchburg, Va., $26.63; M. J. Drummond & Co., New York, $27.90; U. S. Cast Iron Pipe & Foundry Co., New York, $30.90; Camden Iron Works, Philadelphia, Pa., $31.50; Central Foundry Co., Newark, N. J., (Universal pipe), $39.48 and $40.52.

## TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ × 6 ins., 6 × 9 ins., and 9 × 12 ins.)

STEAM PILE HAMMERS.—A. F. Bartlett & Co., Saginaw, Mich. Paper; 5¼ × 6¾ ins.; pp. 12; illustrated.

This pamphlet describes the Cram steam pile hammer, as used for ordinary and sheet piling. Directions for use are given, together with lists of weight, dimensions and prices.

LIGHTNING RODS.—Ajax Conductor & Mfg. Co., 414 Medinah Temple, Chicago. Paper; 5½ × 9 ins.; pp. 36; illustrated.

This pamphlet sets forth the protection afforded to buildings, etc., by proper lightning rod equipment, and illustrates a variety of structures that have been equipped by this company. They include powder works, factories, churches, tall chimneys, residences, etc. The special features of the company's equipment are also explained.

STEAM TURBINES.—The Westinghouse Machine Co., East Pittsburg, Pa. Paper; 6 × 9 ins.; pp. 38; illustrated.

In an unusually elaborate and handsome dress a compact and yet thorough write-up of the Westinghouse Parsons turbine is here presented. Drawings and half-tones have not been spared, to explain the construction. The very typography (two-color printing being used) exhibits the compiler's aim to produce a handsome catalogue. Engineers who bother about such details as steam economy of turbines, the performance of turbines with superheated steam, and the like, will find some interesting tables gathered at the back of the book, giving efficiency tests of typical Westinghouse-Parsons steam turbines in sizes from 400 to 1,250 KW.

HYDRATE OF LIME.—Clyde Iron Works, Duluth, Minn. Paper; 7 × 6½ ins.; pp. 24; illustrated.

The advantages of hydrated lime over lump lime are set forth, and the machinery for its production is described. This includes a crusher, hydrating pan machine, screen and air separator, all of which are manufactured by the company.

STEEL PILING.—Friestedt Interlocking Channel Bar Co., 1468 Tribune Building, Chicago. Paper; 6¼ × 9¼ ins.; pp. 64; illustrated.

This steel piling is described, together with its application to various kinds of work, and there are numerous views of works in which it has been used. There are also a number of copies of testimonials. Four pages are occupied by sections of various designs for steel piling.

ASPHALT.—Geo. C. Callahan & Co., 910 Tacoma Bldg., Chicago. Paper; 5 × 7½; pp. 14; and 3½ × 6¼ ins.; pp. 4.

The larger pamphlet relates mainly to California asphalt products for paint, pipe dip, paving, etc. The smaller pamphlet relates to the Cimmerian asphalt for painting and waterproofing, which is used by a number of railways, bridge builders, and manufacturers.

RIVETING AND CONVEYING MACHINERY.—H. W. Caldwell & Son Co., Western Ave., 17th to 18th St., Chicago. Cloth; 6 × 9 ins.; pp. 736.

In this book are illustrated and described the Caldwell helicoid or screw conveyor, the Caldwell concrete and mortar mixer, bucket elevators, elevator boots, elevator casings, grain spouts, car-loading spouts, mechanical car loaders, bin grates, hoisting machines, belt conveyors and appurtenances, pan and apron conveyors, cable sprocket wheels and cable-trough conveyors, pulley wheels and gears, tension carriages, manila rope [illegible]es, sprocket wheels and chains, belting hangers a[illegible]locks, grease cups, wire cloth screens, wagon dum[illegible]ales, patent wagon dumps, etc. This catalogue con[illegible] many valuable tables and price lists and is well i[illegible]xed.

STUMP PULLERS AND DITCHING MA[illegible]NES.—H. L. Bennett & Co., Westerville, O. Paper; [illegible] 9 ins.; pp. 8; illustrated.

The stump puller is shown by this circu[illegible] to be applicable to the removal of well casing, bould[illegible]etc., and for lifting heavy weights generally; for the [illegible] purpose it may be mounted on a wagon. The d[illegible]g machine excavates narrow and deep trenches fo[illegible] drainage work.

WIRE ROPE.—Macomber & Whyte Rope [illegible] 19-21 South Canal St., Chicago. Paper; 3½ × 5¾ [illegible] pp. 64; illustrated.

This is an illustrated catalogue and pr[illegible]st of wire rope of various kinds for general use [illegible] for special purposes. The section of each kind is sho[illegible], with particulars of diameter, weight, breaking stre[illegible]h and cost. Rope sheaves and blocks are also listed, and there is information as to the use and care of ropes.

DIGGING MACHINERY.—The Hayward Co., 37 Cedar St., New York. Stiff paper; 9¾ × 11¼ ins.; pp. 104.

This catalogue consists almost entirely of photographs of Hayward orange-peel and clam-shell buckets, railroad excavators, steel traveling derricks, coal-handling machines, etc. Photographs show the dredging, excavating, ditching, canal deepening, sinking cylinders and caissons, handling broken stone, phosphate and placer gravel. There are about a hundred well executed half-tones, accompanied by brief explanatory text. Many of these illustrations will be suggestive to contractors and others.

STRUCTURAL STEEL WORK.—Milliken Brothers, 11 Broadway, New York. Leather; 11 × 7 ins.; pp. 447; illustrated.

The pages of this book are evidence of the great diversity in the applications of structural steel work. A profusion of sketches and half-tone views shows work of this class that has been designed and built by Milliken Brothers. Scattered through the book is a considerable amount of text giving general explanation of the various classes of work represented. Tables of strength of various kinds of steel members are grouped in the first section of the book. As a whole, the catalogue relates to structural steel work, both of bridges and of buildings, but there is a good bit of general contract work in building erection shown.

ELECTRIC MACHINERY.—General Electric Co., Schenectady, N. Y. Paper; regular serial bulletins, 8 × 10½ ins.; illustrated.

An index to the General Electric bulletins has recently been issued, which covers the whole range of electrical devices, from apparatus to wire. At the same time, the following new bulletins appeared: No. 4398 describes field rheostats constructed with a sprocket, for operation from a distance; No. 4399 shows the principal details of construction of small direct-driven generating sets, which are built up to about 75 KW. capacity; No. 4400 is devoted to subway transformers, type "H"; No. 4401 shows starting panels for direct-current power motors, up to 20-HP. capacity; No 4402 covers complete charging equipments for electric vehicles.

## HIGHWAY IMPROVEMENT.

Pomona, N. C., April 3, 1905.

Sealed proposals will be received by the Highway Commission of Guilford County, North Carolina, at their office in the city of Greensboro, until 2 p. m., Monday, April 17, 1905, for the construction of about nine miles of macadam road.

One of these roads leads east from Greensboro a distance of about six miles, and the other north from the city of High Point about three miles.

The Greensboro road has been graded, and but very little grading is to be done on the High Point road.

Bids will be received on each road separately.

The macadam work to be twelve feet wide.

A certified check for two per cent. of the amount bid must accompany each proposal.

A bond equal to twenty-five per cent. of the amount bid will be required from the successful bidder.

Specifications, plans, etc., may be seen at the office of the Secretary, Greensboro, on and after April 12th.

The right is reserved to reject all bids

W. C. BOREN, Chairman.
Pomona, N. C.

JOHN L. KING, Secretary,
Greensboro, N. C. 14-2t

U. S. ENGINEER OFFICE, Newport, R. I., April 3, 1905.—Sealed proposals for dredging at Hyannis Harbor and at Nantucket, Mass., will be received here until 11 A. M., May 3, 1905, and then publicly opened. Information furnished on application. J. H. WILLARD, Lt.-Col., Engrs. 14-4t

U. S. ENGINEER OFFICE Pittsburg, Pa., March 17, 1905.—Sealed proposals for building dam No. 2 at Six-Mile Island, Allegheny River, will be received here until 12 M., April 17, 1905, then publicly opened. Information furnished on application. WM. L. SIBERT, Maj., Engrs. 13-4t

## PAVING.

Escanaba, Mich.

The City of Escanaba, Michigan, hereby gives notice that proposals will be received until eight o'clock P. M. on the 18th day of April, 1905, at the office of the City Clerk of said City, for the furnishing of all material and doing the work of paving Ludington Street, from the East line of Smith Court to the West line of Stephenson Avenue, with Vitrified Brick, Bitulithic, Bituminous Macadam, and Sheet Asphalt, on Concrete foundation.

Bidders will state in their bids the kind of paving proposed. The work to be done according to plans, specifications and diagrams on file in the office of the City Clerk which contains an estimate of work to be done. A certified check for at least 10% of the amount must accompany each bid, the same to be forfeited if the bid be accepted and the bidder refuses or neglects to enter into contract. The city reserves the right to reject any and all bids. Bidders will furnish satisfactory surety bonds for the performance of the contract, for labor and material and for said guaranty.

H. J. ROBERTSON,
City Clerk.

Escanaba, Mich, April 1st, 1905. 14-1t

OFFICE CALIFORNIA DEBRIS COMMISSION, Flood Building, San Francisco, Cal., Mar. 20, 1905.—Sealed proposals for building portion of dam known as Barrier No. 1, Yuba River, Cal., will be received here until 12, noon, Apr. 19, 1905, and then publicly opened. Information furnished on application. WM. W. HARTS, Capt., Engrs., Secy. 12-4t

U. S. ENGINEER OFFICE, Army Building, New York, April 1, 1905.—Sealed proposals for Dredging in Coney Island Channel, New York Harbor, will be received here until 12 M., April 17, 1905, and then publicly opened. Information on application. W. L. MARSHALL, Lieut.-Col., Engrs. 14-2t

## BRICK PAVEMENT AND STORM WATER SEWERS.

Barberton, Ohio.

Sealed proposals will be received by the undersigned, at Barberton, Ohio, until 12 o'clock, noon, April 15, 1905, for paving of Baird Ave., Hopocan Ave. and Fourth St., Barberton, Ohio, with vitrified paving block on gravel foundation, amounting in all to 12,848 sq. yds.

Sealed proposals will also be received at the above time for the construction of 316 lineal feet of 20" pipe sewer, 570 lineal feet of 12" pipe sewer, and 940 lineal feet of 30" concrete and brick sewer. The above quantities are approximate only. Plans, specifications and form of contract can be obtained from the undersigned.

W. F. ROBISON,
14-2t Village Clerk.

## 11,148 SQ. YDS. BRICK PAVING.

Paris, Ill.

Bids are asked until 7.30 P. M., April 14, 1905, for laying 11,148 sq. yds. of vitrified brick paving in Madison St.; estimated cost, $23,896.

Specifications may be had by addressing W. T. BLACKBURN, City Engr. 14-1t

FORT SLOCUM, N. Y., April 5, 1905.—Sealed proposals, in triplicate, for steam heating and electric wiring brick double barrack will be received here until 11 a. m., April 19, 1905. Information furnished on application. U. S. reserves right to accept or reject any or all bids or any part thereof. Envelopes containing proposals should be marked "Proposals for heating (or wiring) barrack," addressed W. J. DAVIS, Q. M. 14-2t

Plans and specifications may be seen at the office of Engineering News, 220 Broadway, New York.

PROPOSALS FOR RIPRAP STONE FILLING.—U. S. Engineer Office, 202 Huron Street, Cleveland, O., April 3, 1905.—Sealed proposals for filling with large riprap along the lake face of the West Breakwater at Cleveland Harbor, Ohio, will be received at this office until 2 P. M., May 6, 1905, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. DAN. C. KINGMAN, Lieut.-Col. Corps of Engineers, U. S. A. 14-4t

PROPOSALS FOR SHEATHING BREAKWATER.—U. S. Engineer Office, 202 Huron Street, Cleveland, O., April 3, 1905.—Sealed proposals for sheathing the harbor face of the West Breakwater at Cleveland Harbor, Ohio, will be received at this office until 2 P. M., May 6, 1905, and then publicly opened. Specifications, blank forms and all available information will be furnished on application to this office. DAN. C. KINGMAN, Lieut.-Col. Corps of Engineers, U. S. A. 14-4t

PROPOSALS FOR REPAIRING BREAKWATER.—U. S. Engineer Office, 202 Huron Street, Cleveland, O., April 3, 1905.—Sealed proposals for repairing the shore end of the West Breakwater at Cleveland Harbor, Ohio, will be received at this office until 2 P. M., May 6, 1905, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. DAN. C. KINGMAN, Lieut.-Col. Corps of Engineers, U. S. A. 14-4t

PROPOSALS FOR CONSTRUCTION OF BREAKWATER.—U. S. Engineer Office, 202 Huron Street, Cleveland, O., April 4, 1905.—Sealed proposals for constructing the shore end of West Breakwater at Fairport Harbor, Ohio, will be received at this office until 2 P. M., May 6, 1905, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. DAN. C. KINGMAN, Lieut.-Col. Corps of Engineers, U. S. A. 14-4t

## SITUATIONS OPEN

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